



August 2, 2013

Mr. Jeff Derouen  
Executive Director  
Kentucky Public Service Commission  
211 Sower Boulevard  
P.O. Box 615  
Frankfort, KY 40602

**RECEIVED**

**AUG 02 2013**

**PUBLIC SERVICE  
COMMISSION**

Re: Columbia Gas of Kentucky, Inc.  
PSC Case No. 2013-00167

Dear Mr. Derouen

Enclosed for docketing with the Commission are an original and ten (10) copies of Columbia Gas of Kentucky, Inc.'s responses to the Attorney General's Initial Set of Data Requests. Should you have any questions about this filing, please contact me at 614-460-5558. Thank you.

Very truly yours,

A handwritten signature in blue ink, appearing to read 'Brooke E. Leslie'.

Brooke E. Leslie  
Senior Counsel

Enclosures

**COLUMBIA GAS OF KENTUCKY, INC.  
RESPONSE TO ATTORNEY GENERAL'S FIRST  
REQUEST FOR INFORMATION  
DATED JULY 19, 2013**

1. Reference page 2 of Mr. Miller's testimony.
  - a. How long has Mr. Miller been involved in the natural gas industry as an employee, director, officer, etc. of a natural gas company?
  - b. Describe in detail the position(s) which Mr. Miller has held with regard to the answer above along with the years associated with each one(s).
  - c. Describe the responsibilities for each position with regard to the answer above.
  - d. Describe Mr. Miller's training for each position with regard to the answer above.

**Response:**

- (a) Mr. Miller became involved with the natural industry in 2006.
- (b) and (c): Please refer to pages 1 and 2 of Mr. Miller's filed testimony.

See Mr. Miller's summary resume attached hereto.

(c) Mr. Miller has over 25 years of leadership experience in the regulated industries of banking and utilities as described in his filed testimony.

**Herbert A. Miller, Jr. ("Herb")**  
**President**  
**Columbia Gas of Kentucky, Inc.**  
**2001 Mercer Road**  
**Lexington, KY. 40511**  
**hamiller@nisource.com**  
**859-288-0275 (w)**  
**859-269-3782 (h)**  
**859-533-3572 (cell)**

**Current Position:** President, Columbia Gas of Kentucky, Inc. (2006 – present).

**Education:**

J.D. University of Kentucky College of Law (1976)  
B.A. University of Kentucky (1973)  
Danville High School, Danville, Kentucky (1969)

**Previous Employment:**

- American Water Company: Vice President and General Counsel for the states of Georgia, Kentucky and Tennessee (1998 - 2006)
- Stoll Keenon Ogden Law Firm (Lexington, Ky.): Partner (1993 - 1998).
- UK College of Business and Economics: Adjunct Professor (1993 - 1998)
- Bank One, Kentucky: Senior VP and General Counsel (1980 - 1993)
- Lexington-Fayette Urban County Government: Corporate Counsel (1977-1980)

**Current Service on Boards of Directors:**

- University of Kentucky Alumni Association (national board)
- Commerce Lexington: Executive Board and Vice Chair for Leadership
- Lexington Industrial Foundation
- Triangle Foundation: Executive Board and Secretary
- Bluegrass Chapter of the American Red Cross
- Prichard Committee for Academic Excellence (Executive Committee)
- Salvation Army
- University of Kentucky College of Education Board of Advocates
- Midway College Board of Business Advisors
- Financial Research Institute of University of Missouri

**Previous Community and Board Service:**

- United Way of the Bluegrass
- REACH, Inc. (low-income housing counseling and assistance)
- Lexington Partnership for Workforce Development (Past Chair)
- Lexington-Fayette County Board of Zoning Adjustments (Past Chair)
- Commerce Lexington: Chair of 2010 Winner's Circle Fund Drive



**COLUMBIA GAS OF KENTUCKY, INC.  
RESPONSE TO ATTORNEY GENERAL'S FIRST  
REQUEST FOR INFORMATION  
DATED JULY 19, 2013**

2. Reference page 3 of Mr. Miller's testimony.
  - a. Provide the names of the other local distribution companies that NiSource owns and operates.
  - b. Provide the percentage of revenue that Columbia contributes to NiSource in actual dollars and percentage as the latter relates to NiSource's earnings.
  - c. Provide the actual dollars and percentages for each of the other local distribution companies that contribute to NiSource's earnings.

**Response:**

2.a.

The names of the other local distribution companies that NiSource owns and operates are noted below:

- a. Columbia Gas of Maryland, Inc.
- b. Columbia Gas of Pennsylvania, Inc.

- c. Columbia Gas of Ohio, Inc.
- d. Columbia Gas of Virginia, Inc.
- e. Bay State Gas Company d/b/a Columbia Gas of Massachusetts, Inc.
- f. Northern Indiana Public Service Company (This Company is a combined electric and gas utility. Part of the Company functions as a gas local distribution provider.)

2.b

Company Names	Twelve Months Ended December 31, 2012	
	Net Revenue (In Millions)	% of NI's Net Revenue
Columbia Gas of Kentucky Inc.	\$ 60.1	1.71%
NiSource Inc. Consolidated (NI)	\$ 3,517.0	

2.c

Company Names	Twelve Months Ended December 31, 2012	
	Operating Income (In Millions)	% of NI's Operating Income
Columbia Gas of Kentucky, Inc.	\$ 17.5	1.68%
Columbia Gas of Maryland, Inc.	\$ 4.9	0.47%
Columbia Gas of Massachusetts, Inc.	\$ 29.3	2.82%
Columbia Gas of Ohio, Inc.	\$ 147.4	14.17%
Columbia Gas of Pennsylvania, Inc.	\$ 70.1	6.74%
Columbia Gas of Virginia, Inc.	\$ 51.5	4.95%
Northern Indiana Public Service Company - Gas	\$ 70.6	6.79%
Total LDC Operating Income	\$ 391.3	37.63%

NiSource Inc. Consolidated (NI) Operating Income \$ 1,039.9

**COLUMBIA GAS OF KENTUCKY, INC.**  
**RESPONSE TO ATTORNEY GENERAL'S FIRST**  
**REQUEST FOR INFORMATION**  
**DATED JULY 19, 2013**

3. Reference page 4 and 5 of Mr. Miller's testimony.
  - a. Why has the company chosen to use a forecasted test period?
  - b. By choosing a forecasted test period, is it true that the company has requested costs in its rate application that are more speculative in nature, as in history has yet to prove the costs "known and measureable?" If not, why not?
  - c. Will the costs requested with the "enhancement of the AMRP program" be based on reliance that the company will actually incur the costs and provide the service? If not, why not?
  - d. Provide the names of any other NiSource local distribution company that has implemented a rate design that adjusts the base rates for the residential classes' on a quarterly basis to reconcile the difference in non-gas revenues to account for changes in gas usage per customer caused by factors not addressed by the existing Weather Normalization Adjustment.

- e. Provide the names of any other NiSource local distribution company that has requested but denied Commission approval in other states to implement a rate design that adjusts the base rates for the residential classes' on a quarterly basis to reconcile the difference in non-gas revenues to account for changes in gas usage per customer caused by factors not addressed by the existing Weather Normalization Adjustment.
  - i. Provide the name of the company and the docket number for any such case.

**Response:**

- (a) A forecasted test year is recognized by Kentucky law as a rate-making methodology that allows an applicant to request and implement rates based on a utility's forecasted financial position and mitigate the effects of so-called regulatory lag. Columbia's decision to use this methodology is based on this reason.
- (b) A review of historical facts and events may be easier to determine than a forecast. However, a forecast is not the same as speculation. According to Webster's New Collegiate Dictionary (1979 ed.), forecasting means to calculate or predict some future event or condition as a result of rational

study and analysis of available pertinent data. Speculation means the assumption of unusual business risk in hopes of obtaining commensurate gain. The regulatory process in this case will assist the Commission in determining the reliability of Columbia's forecast.

- (c) Yes. Please refer to the testimony of Columbia witness Belle.
- (d) Columbia Gas of Virginia adjusts such rates on a monthly basis.  
Columbia Gas of Massachusetts adjusts rates on a semi-annual basis.
- (e) Columbia is not aware of other NiSource companies that adjust on a quarterly basis. Columbia is not aware of any such cases.

**COLUMBIA GAS OF KENTUCKY, INC.  
RESPONSE TO ATTORNEY GENERAL'S FIRST  
REQUEST FOR INFORMATION  
DATED JULY 19, 2013**

4. Reference page 7 of Mr. Miller's testimony.
  - a. Provide the number of Columbia's customers for each of the past five years broken down by tariff for each year.
  - b. Provide the gas charge that Columbia has passed along to each of the tariffs on a quarterly basis for the past five years.

**Response:**

(a.) Please refer to the table below for Columbia's customers by rate schedule.

	<u>2008</u>	<u>2009</u>	<u>2010</u>	<u>2011</u>	<u>2012</u>
<b>Sales Customers</b>					
Residential					
GSR	97,227	91,634	92,087	91,905	92,640
G1R	23	20	19	18	17
IN3	10	10	10	9	9
IN4	1	1	1	1	1
IN5	5	5	5	5	4

	LG2	1	1	1	1	1
	LG3	1	1	1	1	1
	LG4	1	1	1	1	1
Commercial						
	G1C	4	4	4	4	4
	IN3	1	1	1	1	1
	LG2	1	1	1	1	1
	GSO	11,016	10,522	10,124	9,664	9,653
Industrial						
	GSO	42	40	36	36	38
	IS	-	-	1	1	1
Public Utilities						
	IUS	2	2	2	2	2
<b>Transportation Customers</b>						
Residential						
	GTR	25,759	29,605	28,504	28,157	26,873
Commercial						
	GTO	3,211	3,521	3,832	4,222	4,154
	DS	26	28	28	29	30
	GDS	17	17	17	16	15
	FX1	1	1	1	1	1
	FX2	1	1	1	1	1
	SAS					

		1	1	1	1	1
Industrial	SC2	1	1	1	1	-
	GTO	6	10	12	14	12
	DS	45	42	39	39	39
	GDS	9	12	14	14	15
	DS3	1	2	2	2	3
	FX4	1	1	1	-	-
	FX5	3	3	3	3	3
	FX6	1	1	1	1	-
	FX7	1	1	1	1	1
	FX8	-	1	1	1	-
	SC3	1	1	1	1	1
<b>Total</b>		<u>137,420</u>	<u>135,492</u>	<u>134,754</u>	<u>134,154</u>	<u>133,523</u>

(b.) The table below shows Columbia's quarterly gas cost recovery rate applicable to sales customers for the past five years.

<u>GCA Date</u>	<u>\$/Mcf</u>
Dec-07	\$10.5891
Mar-08	\$10.6673
Jun-08	\$13.6508
Sep-08	\$14.2263
Dec-08	\$13.2687
Mar-09	\$10.1224



Jun-09	\$7.9067
Sep-09	\$3.6117
Nov-09	\$3.6835
Dec-09	\$4.3688
Mar-10	\$6.4139
Jun-10	\$4.4169
Sep-10	\$6.9554
Dec-10	\$6.9981
Mar-11	\$5.8813
Jun-11	\$5.4551
Sep-11	\$5.6418
Dec-11	\$5.4498
Mar-12	\$5.6509
Jun-12	\$3.7230
Sep-12	\$3.5459
Dec-12	\$4.2366
Mar-13	\$4.1237
Jun-13	\$5.1354

KY PSC Case No. 2013-00167  
Response to AG's Data Request Set One No. 005  
Respondent: Herbert A Miller, Jr. and Paul R. Moul

**COLUMBIA GAS OF KENTUCKY, INC.  
RESPONSE TO ATTORNEY GENERAL'S FIRST  
REQUEST FOR INFORMATION  
DATED JULY 19, 2013**

5. Reference page 7 of Mr. Miller's testimony.
  - a. Provide the overall authorized rate of return and the ROE that the other local distribution companies that NiSource owns and operates have been awarded over the past five years.
  - b. Provide the actual authorized rate of return and the ROE that the other local distribution companies that NiSource owns and operates have achieved over the past five years.

**Response:**

- a. Please see Attachment A hereto for the authorized rate of return and the ROE for the local distribution companies of NiSource that have been awarded over the past five years.
- b. Please see Attachment B hereto for the actual rate of return and the ROE for the local distribution companies of NiSource that have been achieved over the past five years.

PSC Case No. 2013-00167  
 AG Set 1 DR No. 5  
 Attachment A  
 Respondent: P.R. Moul

Company	Year	Docket Number	Allowed Rate of	
			Return	Allowed Return on Equity
Columbia Gas of Massachusetts	2012	D.P.U 12-25	7.84%	9.45%
	2009	D.P.U. 9-30	8.18%	9.95%
Columbia Gas of Ohio	2008	C-08-0072-GA-AIR	8.12%	10.39%
Columbia Gas of Pennsylvania	2012	R-2012-2321748	Settled	Settled
Columbia Gas of Pennsylvania	2011	R-2010-2215623	Settled	Settled
Columbia Gas of Pennsylvania	2010	R-2009-2149262	Settled	Settled
Columbia Gas of Virginia	2010	C-PUE-2010-00017	7.92%	10.10%
Columbia Gas of Maryland	2009	Case No. 9219	8.03%	Settled
NIPSCO	2009	Case No. 43894	7.00%	5.49%

**Achieved Rate of Return**

	2012	2011	2010	2009	2008
Columbia Gas of Massachusetts	5.7%	6.5%	6.4%	6.0%	5.9%
Columbia Gas of Ohio	7.8%	8.1%	8.1%	7.6%	5.5%
Columbia Gas of Pennsylvania	7.3%	8.4%	6.6%	7.3%	8.1%
Columbia Gas of Virginia	8.2%	7.6%	7.6%	6.2%	6.8%
Columbia Gas of Maryland	5.1%	5.7%	7.0%	5.7%	3.9%
NIPSCO***	5.3%	4.0%	1.4%	1.3%	3.4%

**Achieved Return on Equity**

	2012	2011	2010	2009	2008
Columbia Gas of Massachusetts*	6.4%	7.9%	6.9%	5.6%	6.2%
Columbia Gas of Ohio	9.8%	10.9%	11.0%	11.0%	10.9%
Columbia Gas of Pennsylvania**	8.6%	9.9%	7.7%	8.8%	10.7%
Columbia Gas of Virginia*****	8.3%	10.1%	11.7%	9.0%	8.5%
Columbia Gas of Maryland	5.1%	5.9%	8.4%	6.2%	2.4%
NIPSCO****	9.6%	8.6%	6.6%	2.7%	7.6%

\*As reported on Page R2 of the Company's Annual Return to the Department of Public Utilities

\*\*As reports on Tab D2 of the Quarterly Earnings Reports submitted to the PA Commission

\*\*\*Based on Fair Value Rate Base (as the 2010 Gas Rate Case was settled on an agreed upon FV Rate Base)

\*\*\*\*ROE is calculated based on Total NIPSCO (Gas and Electric)

\*\*\*\*\*Based on Jurisdictional Earnings Test

**COLUMBIA GAS OF KENTUCKY, INC.  
RESPONSE TO ATTORNEY GENERAL'S FIRST  
REQUEST FOR INFORMATION  
DATED JULY 19, 2013**

6. Reference page 8 of Mr. Miller's testimony.
  - a. Explain in detail each improvement that the company lists in its purported improvements noted on lines 9 through 19.

**Response:** Mobile Data Terminals (MDTs) are located in each Columbia service vehicle for the purpose of receiving and sending electronic messages to assist employees in serving customers. Connected to Columbia's Integration Center in Columbus, Ohio, and Columbia's Lexington headquarters, Company employees communicate about emergency responses, customer appointments, severe weather warnings, employee and customer safety, and other business communications. The Call-Ahead program was established to give Columbia customers advance telephone notice of an appointment time with a Company service technician. The program allows the customer to designate the preferred telephone number for the Company to call and has improved customer relationships and reduced the chances of being unable to access a customer's

premises due to no one being home or other issues. Electronic bill payment is becoming increasingly more popular among customers. Columbia has offered customers the opportunity to pay their bills through Internet access, as well as traditional methods such as mail, in person, and bank debit. Columbia has also increased the number of locations at which customers may pay their bills. As stated in my previously filed testimony, Columbia customers may pay their bills at many Wal-Mart and Kroger stores in its service territory,

**COLUMBIA GAS OF KENTUCKY, INC.  
RESPONSE TO ATTORNEY GENERAL'S FIRST  
REQUEST FOR INFORMATION  
DATED JULY 19, 2013**

7. Reference page 8 of Mr. Miller's testimony.
  - a. With regard to the "random telephone interviews" conducted by the Thoroughbred Research Group, provide the following:
    - i. The number of customers contacted;
    - ii. The dates when the customers were contacted;
    - iii. The specific questions asked; and
    - iv. Any and all case characteristics which were obtained by the customers, including age, income level, location; etc.

**Response:**

- i. Thoroughbred Research Group interviewed 1,675 Columbia Gas of Kentucky customers in 2012.
- ii. Customers are called weekly throughout the year to fulfill sampling quotas to achieve statistical significance at the 95/5 confidence interval at the quarterly level.

iii. The questions that are referenced in Mr. Miller's testimony are asked in the following manner:

**Overall Satisfaction with Customer Service Rep:**

Think about the specific Columbia Gas of Kentucky customer service representative you spoke with. Using a ten-point scale where one means "poor" and ten means "excellent", how would you rate the overall performance of the customer service rep.

**Overall Ease of Conducting Business:**

On a scale from one to ten where one means "poor" and ten means "excellent", how would you rate the overall ease of conducting your business with Columbia Gas of Kentucky?

**First Call Resolution:**

Regarding your most recent phone customer service experience, how many contacts did it take to answer your question or resolve your problem?

iv. The only case characteristic that Thoroughbred documents is the gender of the respondent. No other identifying characteristics (demographics) are collected.



KY PSC Case No. 2013-00167  
Response to AG's Data Request Set One No. 008  
Respondents: Herbert A Miller, Jr. and Eric T. Belle

**COLUMBIA GAS OF KENTUCKY, INC.  
RESPONSE TO ATTORNEY GENERAL'S FIRST  
REQUEST FOR INFORMATION  
DATED JULY 19, 2013**

8. Reference page 10 of Mr. Miller's testimony.
- a. Please provide the number of accidents, whether explosions, fires, etc., that have occurred during the past five years on Columbia's system.

For each one, identify the following in detail:

- i. The type of accident;
- ii. The number of people injured or killed, if any;
- iii. The cause for the accident;
- iv. The contractor, company, or person who caused the accident;  
and
- v. The damages sustained, whether personal or property.

**Response:**

Columbia's focus is on avoiding accidents by maintaining the integrity of its pipeline system. This is a multi-faceted approach that includes both pipeline replacement and damage prevention. In the past five years, of the numerous

incidents of damages, there has been one U.S. Department of Transportation (DOT) reportable accident.

i. Facility damage by third party contractor

ii. None

iii. Contractor error

iv. ATS Construction

v. Columbia's 12-inch diameter steel high pressure main was punctured resulting in the loss of natural gas, along with labor, material and equipment related costs to repair the damaged line, of approximately \$500,000.

**COLUMBIA GAS OF KENTUCKY, INC.  
RESPONSE TO ATTORNEY GENERAL'S FIRST  
REQUEST FOR INFORMATION  
DATED JULY 19, 2013**

9. Reference page 10 of Mr. Miller's testimony.
- a. Regarding the leaks per mile, please list for each of the last five years the amount of unaccounted for gas by the company.

**Response:**

Unaccounted for gas is reported annually to PHMSA as a percent of the total input for the 12 months ending on June 30 of the reporting year. The percentages for Columbia for the last five years follows in the table below.

Year	Unaccounted for Gas
2008	0.9%
2009	0.9%
2010	1.2%
2011	1.1%
2012	0.4%

KY PSC Case No. 2013-00167  
Response to AG's Data Request Set One No. 010  
Respondents: Herbert A Miller, Jr., Eric T. Belle, and Kimra H. Cole

**COLUMBIA GAS OF KENTUCKY, INC.  
RESPONSE TO ATTORNEY GENERAL'S FIRST  
REQUEST FOR INFORMATION  
DATED JULY 19, 2013**

10. Reference page 10 of Mr. Miller's testimony.
  - a. Please explain in detail what is meant by "inspecting, monitoring, repairing, and replacing (where necessary) its facilities." The inspection should include any and all aspects, whether planning, operations, and accounting.

**Response:**

Columbia has a detailed work plan for operations and maintenance related work, which includes inspection and repair related activities to safely maintain and operate our natural gas distribution facilities. Columbia's plant leak inspection and plant leak repair activities play a crucial role in the safe operation of our system. The plant leak inspection activities include program leak surveys, supplemental leakage surveys, and the re-inspection of previously identified leaks on company mains and services. The plant leak repair activities include the repair of company mains and services that have experienced a leak. When it is

necessary or not feasible to make repairs on these types of facilities, Columbia will replace these facilities and continue to maintain the safe reliable delivery of natural gas to our customers.

KY PSC Case No. 2013-00167  
 Response to AG's Data Request Set One No. 011  
 Respondents: Herbert A Miller, Jr., Eric T. Belle, and Kimra H. Cole

**COLUMBIA GAS OF KENTUCKY, INC.  
 RESPONSE TO ATTORNEY GENERAL'S FIRST  
 REQUEST FOR INFORMATION  
 DATED JULY 19, 2013**

11. Reference the answer to the prior question. Please provide an exact, actual accounting for the past five years for each and every item identified therein.

**Response:**

See list below:

Activity Name	Actual O&M Spend				
	2008	2009	2010	2011	2012
Program Survey	\$133,878	\$130,651	\$120,297	\$161,699	\$122,806
Supplemental Survey	\$18,667	\$22,347	\$14,577	\$22,716	\$40,866
Reinspection	\$6,849	\$4,988	\$7,033	\$5,048	\$6,737
Follow-up Inspection Mains	\$4,618	\$4,136	\$1,276	\$1,084	\$1,957
Follow-up Inspection Services	\$9,329	\$9,402	\$2,844	\$229	\$485
Odor Investigation	29,630	27,074	26,272	12,529	10,309
Leak Repair Mains	\$918,660	\$917,147	\$738,381	\$727,088	\$530,972
Leak Repair Services	\$309,208	\$320,511	\$290,760	\$162,390	\$108,883

KY PSC Case No. 2013-00167  
Response to AG's Data Request Set One No. 012  
Respondents: Herbert A Miller, Jr. and Brad Bohrer

**COLUMBIA GAS OF KENTUCKY, INC.  
RESPONSE TO ATTORNEY GENERAL'S FIRST  
REQUEST FOR INFORMATION  
DATED JULY 19, 2013**

12. Reference pages 10 and 11 of Mr. Miller's testimony. Identify for each of the last five years the number of automatic meter devices the company has installed.

**Response:**

<b>YEAR</b>	<b>AMRs Installed</b>
2008	-
2009	244
2010	403
2011	5,531
2012	7,831
2013 (Thru June)	4,686

**COLUMBIA GAS OF KENTUCKY, INC.  
RESPONSE TO ATTORNEY GENERAL'S FIRST  
REQUEST FOR INFORMATION  
DATED JULY 19, 2013**

13. Reference the answer to the prior question. Please state the cost for each meter, broken down by cost per unit and installation, as well as the total costs for all unites for each of the past five years.

**Response:**

Please refer to the response to AG's Data Request Set One No. 301 for costs associated with the AMR project.

The total number of AMR units purchased by Columbia over the past five years is as follows:

<b>YEAR</b>	<b>AMRs Purchased</b>
2009	300
2010	1,500
2011	6,240
2012	8,150
2013 (thru June)	6,300



**COLUMBIA GAS OF KENTUCKY, INC.  
RESPONSE TO ATTORNEY GENERAL'S FIRST  
REQUEST FOR INFORMATION  
DATED JULY 19, 2013**

14. Describe the automatic meter read device (hereinafter "AMR" or "device") in detail, including the following:
- a. Whether the device only sends a signal to the company;
  - b. Type by make, model and year;
  - c. Type and manner of signal used for communicating with the company;
  - d. Type and manner of signal used for communicating with the customer, if applicable; and
  - e. Life cycle of the device.

**Response:**

- a. The AMR device being utilized by Columbia only transmits data, and does not receive data.
- b. Columbia is installing the Itron 100G gas ERT module.
- c. The AMR operates in the 900 MHz range.
- d. Not applicable

- e. The AMR is powered by an "A" cell lithium battery that provides a battery life of 20 years.

KY PSC Case No. 2013-00167  
Response to AG's Data Request Set One No. 015  
Respondents: Herbert A Miller, Jr. and S. Mark Katko

**COLUMBIA GAS OF KENTUCKY, INC.  
RESPONSE TO ATTORNEY GENERAL'S FIRST  
REQUEST FOR INFORMATION  
DATED JULY 19, 2013**

15. Regarding the AMR and more specifically the Miller testimony at page 12, provide in detail any company savings anticipated for using same for each of the past five years as well as per year going forward.

**Response:**

Automated meter reading device installations between 2008 and 2013 targeted "hard to access" meters and new or refurbished meters with AMR devices pre-installed. These targeted AMR installations resulted in no savings during the past five years. The mass deployment of AMRs is planned for 2014 and Operations and Maintenance expense savings are anticipated starting with the fourth quarter of 2014, resulting in an estimated reduction of \$199,731 to 2014 O&M expense. For 2015, net savings is anticipated to be approximately \$741,000. For 2016 and beyond, savings is anticipated to be approximately \$767,000.

KY PSC Case No. 2013-00167  
Response to AG's Data Request Set One No. 016  
Respondent: Herbert A Miller, Jr.

**COLUMBIA GAS OF KENTUCKY, INC.  
RESPONSE TO ATTORNEY GENERAL'S FIRST  
REQUEST FOR INFORMATION  
DATED JULY 19, 2013**

16. Regarding the AMR and more specifically the Miller testimony at page 12, provide in detail any **customer** savings anticipated for using same for each of the past five years as well as per year going forward. (Customer savings should be interpreted to mean a reduction in usage translating to a reduction in the volumetric portion of his/her bill.

**Response:**

An AMR device on a meter will not, in and of itself, result in a reduction of gas usage; and therefore, a reduction in the volumetric portion of the customer's bill.

KY PSC Case No. 2013-00167  
Response to AG's Data Request Set One No. 017  
Respondents: Herbert A Miller, Jr. and Eric T. Belle

**COLUMBIA GAS OF KENTUCKY, INC.  
RESPONSE TO ATTORNEY GENERAL'S FIRST  
REQUEST FOR INFORMATION  
DATED JULY 19, 2013**

17. Does an unprotected gas pipeline over time serve as a potential safety hazard?

**Response:**

An unprotected gas pipeline over time will experience corrosion, which is the reduction of the wall thickness of steel pipe. Over time, the continued reduction of wall thickness in an unprotected pipeline will result in a leak. Under certain conditions, unprotected pipelines can lead to safety and reliability risks.

**COLUMBIA GAS OF KENTUCKY, INC.  
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DATED JULY 19, 2013**

18. Reference page 12 of Mr. Miller's testimony.
- a. Is this testimony to be interpreted to mean that that the company waited until 2008 to identify and replace the unprotected gas pipelines in its system? If yes, why did the company wait until 2008?
  - b. If the answer to the prior question is yes, does the company believe that standards in the natural gas industry did not materialize until 2008 to routinely identify and replace unprotected gas pipelines? Regardless of the answer, explain in detail.

**Response:**

- a. No. Columbia identified and replaced unprotected pipelines prior to 2008. In 2008, Columbia began its accelerated main replacement program to replace the remaining miles of unprotected gas pipelines in its system over a 30-year period.
- b. See the response to part (a) above.

KY PSC Case No. 2013-00167  
Response to AG's Data Request Set One No. 019  
Respondents: Herbert A Miller, Jr. and Eric T. Belle

**COLUMBIA GAS OF KENTUCKY, INC.  
RESPONSE TO ATTORNEY GENERAL'S FIRST  
REQUEST FOR INFORMATION  
DATED JULY 19, 2013**

19. If the standards did not materialize until 2008, did the company not believe that due diligence would not otherwise dictate that a local distribution company should inspect and replace unprotected gas pipelines prior to that year? Regardless of the answer, explain in detail.

**Response:**

See Columbia's response to AG Data Request Set One No. 018.

KY PSC Case No. 2013-00167  
Response to AG's Data Request Set One No. 020  
Respondents: Herbert A Miller, Jr. and Eric T. Belle

**COLUMBIA GAS OF KENTUCKY, INC.  
RESPONSE TO ATTORNEY GENERAL'S FIRST  
REQUEST FOR INFORMATION  
DATED JULY 19, 2013**

20. Reference page 13 of Mr. Miller's testimony. Describe in detail what is meant by "'priority' pipe.'

**Response:**

Columbia defines "priority pipe" as unprotected bare steel, cathodically protected bare steel, cathodically unprotected coated steel, cast iron and wrought iron pipe.



KY PSC Case No. 2013-00167  
Response to AG's Data Request Set One No. 021  
Respondents: Herbert A Miller, Jr. and Eric T. Belle

**COLUMBIA GAS OF KENTUCKY, INC.  
RESPONSE TO ATTORNEY GENERAL'S FIRST  
REQUEST FOR INFORMATION  
DATED JULY 19, 2013**

21. Reference pages 14 and 15 of Mr. Miller's testimony. What is meant by a positive variance of 8.2%?

**Response:**

From 2008 through 2012, Columbia's total capital approved budget was \$64.6 million. Columbia's capital expenditures for this same time period totaled \$69.9 million. This positive variance of \$5.3 million dollars over the five year period represents a positive variance of 8.2 percent.

KY PSC Case No. 2013-00167  
Response to AG's Data Request Set One No. 022  
Respondent: Herbert A Miller, Jr.

**COLUMBIA GAS OF KENTUCKY, INC.  
RESPONSE TO ATTORNEY GENERAL'S FIRST  
REQUEST FOR INFORMATION  
DATED JULY 19, 2013**

22. Reference pages 15 and 16 of Mr. Miller's testimony. Identify the company and case number in which the slippage factor was allowed.

**Response:**

"Positive" slippage was allowed in the application by Kentucky American Water in Commission Order dated December 14, 2010 in Case No. 2010 - 00036.

KY PSC Case No. 2013-00167  
Response to AG's Data Request Set One No. 023  
Respondent: Herbert A Miller, Jr.

**COLUMBIA GAS OF KENTUCKY, INC.  
RESPONSE TO ATTORNEY GENERAL'S FIRST  
REQUEST FOR INFORMATION  
DATED JULY 19, 2013**

23. Distinguish in detail precisely how Columbia's "current and future state of strength of Columbia's capital program" differ from the other company not identified in the testimony.

**Response:**

In PSC Case No. 2009 – 00141, Columbia committed to invest more than \$200 million over 30 years to replace pipelines and facilities that were not adequately protected against corrosion and other causes of leaks and damages. Columbia has strengthened its capital planning process, as described in the testimony of Columbia witness Belle, to identify priority pipeline locations, assess risk and efficiently complete projects to protect its customers, its employees and the public.

KY PSC Case No. 2013-00167  
Response to AG's Data Request Set One No. 024  
Respondents: Chad E. Notestone and Eric T. Belle

**COLUMBIA GAS OF KENTUCKY, INC.  
RESPONSE TO ATTORNEY GENERAL'S FIRST  
REQUEST FOR INFORMATION  
DATED JULY 19, 2013**

24. Provide the budgeted amounts for the AMRP for the past five years.

**Response:**

- a. Columbia's processes and capital status reports did not separately track AMRP expenditures prior to 2009. See the attachment hereto for the budgeted amounts for AMRP for the years 2009 through 2012.





**COLUMBIA GAS OF KENTUCKY, INC.  
RESPONSE TO ATTORNEY GENERAL'S FIRST  
REQUEST FOR INFORMATION  
DATED JULY 19, 2013**

25. Provide the actual amounts for the AMRP for the past five years.
- a. What assurances exist, if any, that the company will not deviate from its "positive variance" with its implementation of the AMRP?

**Response:**

- a. Columbia's processes and capital status reports did not separately track AMRP actual amounts prior to 2009. See Columbia's response to AG data request Set One No.24 Attachment A for the actual amounts for AMRP for the years 2009 through 2012. Columbia's capital budget contains a materially large component of AMRP related expenditures, which extends for at most another 25 years. In the past five years, Columbia has become more disciplined and focused on improving the processes that support effective capital planning and execution. Although there are no assurances that Columbia will maintain the current level of positive variance annually, Columbia understands fully the importance of meeting its commitment to execute its AMRP over the life of the program as provided in Case No. 2009 - 00141. Columbia's results over the past five years



are key indicators of our commitment and focus towards successfully executing this program.

KY PSC Case No. 2013-00167  
Response to AG's Data Request Set One No. 026  
Respondent: Judy M. Cooper

**COLUMBIA GAS OF KENTUCKY, INC.  
RESPONSE TO ATTORNEY GENERAL'S FIRST  
REQUEST FOR INFORMATION  
DATED JULY 19, 2013**

26. What rate making mechanism exists, if any, if the company deviates from its budget for the implementation for the AMRP? Explain the answer in detail.

**Response:**

The proposed revisions to Columbia's AMRP Rider add a new balancing adjustment component to true-up the actual costs with the projected costs on an annual basis.



KY PSC Case No. 2013-00167  
Response to AG's Data Request Set One No. 027  
Respondent: Judy M. Cooper

**COLUMBIA GAS OF KENTUCKY, INC.  
RESPONSE TO ATTORNEY GENERAL'S FIRST  
REQUEST FOR INFORMATION  
DATED JULY 19, 2013**

27. What rate relief exists, if any, if the company deviates from its budgeted AMRP if the Commission awards a positive slippage factor?

**Response:**

Please see Columbia's response to AG data request number 1-26.

**COLUMBIA GAS OF KENTUCKY, INC.  
RESPONSE TO ATTORNEY GENERAL'S FIRST  
REQUEST FOR INFORMATION  
DATED JULY 19, 2013**

28. Reference pages 17 and 18 of Mr. Miller's testimony. Is Mr. Miller essentially testifying that, because consumers are conserving (translated as saying a reduction in their carbon footprint) and reducing their bills, the company is entitled to increase its rates and thus create a financial impediment to the customers' efforts in conservation? If not, explain in detail.

**Response:**

The regulatory compact dictates that Columbia should be provided with a reasonable opportunity to earn its allowed rate of return. Where the rates approved by the Commission recover fixed costs associated with access to gas distribution service and sufficient capacity to meet the design day requirements of customers in a safe and reliable manner, it is the obligation of customers to pay for that service under rates that produce adequate revenues to enable the recovery of all costs including a return of and on the Columbia's investment.

When conservation occurs as the result of direct or indirect actions of customers, their gas bills should change only by the amount of actual cost savings achieved through conservation. To the extent that savings to the customer are greater than the cost savings to the utility because of an economically inefficient rate design, the regulatory compact is broken unless or until the Commission approves tariff adjustments that, taken as a whole, provide the utility with a reasonable opportunity to earn its allowed rate of return. The increase in rates required to offset the impact of an inadequate rate structure is a necessary element of just and reasonable rates and creates no true impediment to conservation. The fundamental concern created by economically inefficient rates is the implicit intra-class subsidy that arises from one group of customers benefiting from conservation through savings on their bills that are greater than the cost savings experienced by the utility from that conservation, and another group of customers paying for that subsidy through higher rates.

KY PSC Case No. 2013-00167  
Response to AG's Data Request Set One No. 029  
Respondents: Herbert A Miller, Jr. and Russell A. Feingold

**COLUMBIA GAS OF KENTUCKY, INC.  
RESPONSE TO ATTORNEY GENERAL'S FIRST  
REQUEST FOR INFORMATION  
DATED JULY 19, 2013**

29. Reference page 18 of Mr. Miller's testimony. Explain in detail how the Revenue Normalization Adjustment will promote energy efficiency at the end-user level.

**Response:**

Columbia's proposed RNA mechanism promotes energy efficiency at the end-user level by maintaining a rate design that provides excessive incentives for customers to invest in conservation activities while providing Columbia with a reasonable opportunity to earn its allowed rate of return.

KY PSC Case No. 2013-00167  
Response to AG's Data Request Set One No. 030  
Respondents: Herbert A Miller, Jr. and Russell A. Feingold

**COLUMBIA GAS OF KENTUCKY, INC.  
RESPONSE TO ATTORNEY GENERAL'S FIRST  
REQUEST FOR INFORMATION  
DATED JULY 19, 2013**

30. Reference pages 20 and 21 of Mr. Miller's testimony. Reconcile the \$1.06 roll-in of the AMRP into base rates and the remaining amount to amount to a customer charge difference from \$12.35 to \$18.50.

**Response:**

Columbia's current Residential customer charge has been increased to recover a greater portion of the fixed costs associated with access to the gas distribution system for its residential customers. Columbia's residential customers are currently charged an AMRP amount of \$1.06 per month in addition to the current monthly Customer Charge of \$12.35, for a total of \$13.41 per month. When Columbia's rates filed in this case are approved by the Commission, the AMRP amount will be reset to zero because the underlying fixed costs reflected in the current AMRP charge will be recovered through Columbia's new base rates.

KY PSC Case No. 2013-00167  
Response to AG's Data Request Set One No. 031  
Respondents: Herbert A Miller, Jr. and Russell A. Feingold

**COLUMBIA GAS OF KENTUCKY, INC.  
RESPONSE TO ATTORNEY GENERAL'S FIRST  
REQUEST FOR INFORMATION  
DATED JULY 19, 2013**

31. Reference page 21 of Mr. Miller's testimony. Explain in detail the reasoning for the increase in the Gas Delivery Charge from \$1.8715 to \$2.4322.

**Response:**

There are only two components of Columbia's current rate structure that can be used to recover the total revenue requirements from its residential class – the monthly Customer Charge and the Gas Delivery Charge. As a result, for the amount of class revenues not designed to be recovered through the proposed monthly Customer Charge, that remaining amount must be recovered through the Gas Delivery Charge; even when increasing the current Gas Delivery Charge does not reflect an economically efficient rate design and serves to perpetuate intra-class cost subsidies.

KY PSC Case No. 2013-00167  
Response to AG's Data Request Set One No. 032  
Respondents: Herbert A Miller, Jr., Chad E. Notestone, and William J. Gresham

**COLUMBIA GAS OF KENTUCKY, INC.  
RESPONSE TO ATTORNEY GENERAL'S FIRST  
REQUEST FOR INFORMATION  
DATED JULY 19, 2013**

32. Reference page 21 of Mr. Miller's testimony.
- a. Provide the average residential customer use for each of the past five years.
  - b. Provide the average customer use for each tariff on file at the Commission for each of the past five years.

**Response:**

- a. The average residential customer use for each of the past five years was:

Columbia Gas of Kentucky Average Residential MCF/Customer	
2007	69.9
2008	75.3
2009	72.0
2010	74.7
2011	73.1
2012	59.6

- b. Below is the average customer use by rate schedule.

<u>Description</u>	<u>2008</u>	<u>2009</u>	<u>2010</u>	<u>2011</u>	<u>2012</u>
<b>Residential</b>					
GSR	74.5	71.6	73.7	72.1	58.8
GTR	82.0	76.8	81.2	79.6	64.7
G1R	109.7	118.4	124.1	115.9	96.5
IN3	156.2	125.9	125.4	112.4	94.4
IN4	117.9	104.6	110.2	110.8	108.9
IN5	152.8	146.9	145.3	128.7	114.5
LG2	676.0	609.2	577.9	763.4	523.7
LG3	510.1	615.7	588.4	582.6	445.3
LG4	283.0	275.2	307.4	294.5	207.5
<b>Commercial</b>					
GSO	378.6	364.2	374.8	350.5	280.4
GTO	457.9	445.7	453.3	439.5	395.3
G1C	1,737.8	1,566.8	1,212.0	916.5	611.0
IN3	58.9	43.9	47.0	53.3	51.4
LG2	980.3	866.9	1,004.8	1,047.1	748.7
DS	57,540.2	52,780.1	52,501.4	51,519.7	48,490.0
GDS	15,060.3	13,584.1	12,931.1	12,911.1	14,147.2
FX1	311,128.0	441,301.0	545,860.0	481,477.0	860,113.0
FX2	5,852.0	48,735.0	92,564.0	138,687.0	30,486.0
SAS	52,357.0	54,157.0	45,870.0	45,476.0	51,599.0
SC2	671,369.0	874,958.0	970,758.0	578,857.0	-
<b>Industrial</b>					
GSO	4,149.5	3,424.6	4,287.3	3,526.5	4,806.4
GTO	5,677.5	3,667.4	4,587.1	3,596.3	4,124.9
IS	-	-	-	25,210.0	36,610.0
DS	148,098.6	137,300.6	150,183.7	141,348.1	143,402.2
GDS	13,152.3	14,356.9	15,269.0	15,670.9	14,031.3
DS3	213,976.0	105,470.5	91,330.0	90,274.5	233,332.3
FX4	52,333.0	41,400.0	31,932.0	-	-
FX5	1,877,757.3	1,373,773.3	1,434,470.3	1,276,067.0	1,333,643.0
FX6	346,158.0	493,397.0	565,634.0	581,625.0	-
FX7	519,685.0	389,231.0	414,763.0	471,130.0	438,443.0
FX8	-	35,273.0	40,317.0	40,523.0	-
SC3	4,145,865.0	3,419,764.0	4,606,685.0	5,173,542.0	5,037,809.0
<b>Public Utilities</b>					
IUS	9,567.0	8,744.0	8,489.5	7,345.5	5,277.0



**COLUMBIA GAS OF KENTUCKY, INC.**  
**RESPONSE TO ATTORNEY GENERAL'S FIRST**  
**REQUEST FOR INFORMATION**  
**DATED JULY 19, 2013**

33. Reference page 21 of Mr. Miller's testimony. Explain how the increase requested in the filing will only be \$7.98 when the monthly customer charge will increase \$6.15 (\$18.50 - \$12.35) and the average volumetric charge will increase by \$37.00 ( $(\$2.4322 - \$1.8715) \times 66$ ) thus totaling \$43.16.

**Response:**

The residential increase of \$7.98 is the average monthly increase from current to proposed rates based on average monthly usage of 5.5 Mcf. Please see the table below for this calculation.

		Average Usage (1)	Current Rate (2)	Current Bill (3)	Proposed Rate (4)	Proposed Bill (5)	Difference (6) = (5-3)
Monthly Customer Charge	\$/Bill		12.35	12.35	18.50	18.50	6.15
AMRP Rider	\$/Bill		1.06	1.06	-	-	(1.06)
EECP Rider	\$/Bill		(0.24)	(0.24)	(0.24)	(0.24)	-
Gas Delivery Charge	\$/Mcf	5.5	1.8715	10.29	2.4322	13.38	3.09
Gas Supply Cost (GCA)	\$/Mcf	5.5	4.0634	22.35	4.0634	22.35	-
Uncollectible Gas Gost Rider	\$/Mcf	5.5	0.0603	0.33	0.0243	0.13	(0.20)
Research and Development Factor	\$/Mcf	5.5	0.0150	0.08	0.0150	0.08	-
Energy Assistance Program Surcharge	\$/Mcf	5.5	0.0615	<u>0.34</u>	0.0615	<u>0.34</u>	-
<b>Total</b>				46.56		54.54	7.98

**COLUMBIA GAS OF KENTUCKY, INC.  
RESPONSE TO ATTORNEY GENERAL'S FIRST  
REQUEST FOR INFORMATION  
DATED JULY 19, 2013**

34. Reference page 22 of Mr. Miller's testimony.
- a. Is there any local distribution company in Kentucky that recaptures "lost sales" from a DSM program from a mechanism other than one that is provided by statute? Regardless of the answer, please provide details.
  - b. Is there any local distribution company in any other state under the jurisdiction of a public utility commission that recaptures "lost sales" from a DSM program from a mechanism other than one that is provided by statute? Regardless of the answer, please provide details.

**Response:**

a. and b. Columbia has not conducted a study of other companies' "lost sales" mechanisms. Presumably, if such a mechanism has been approved by a state regulatory commission, it is within the legal authority of that commission to permit recovery of the revenues associated with "lost sales" from DSM programs. However, it is not possible for Columbia to comment on the legal

basis for approval of any such mechanism since it has not undertaken such a study.

KY PSC Case No. 2013-00167  
Response to AG's Data Request Set One No. 035  
Respondents: Herbert A Miller, Jr. and Judy M. Cooper

**COLUMBIA GAS OF KENTUCKY, INC.  
RESPONSE TO ATTORNEY GENERAL'S FIRST  
REQUEST FOR INFORMATION  
DATED JULY 19, 2013**

35. Reference page 23 of Mr. Miller's testimony. If known, provide a comparison of the gas costs of Columbia for each quarter for the past five years versus that of each marketer that participates in the Customer Choice Program. A chart depicting the information would be preferred.

**Response:**

Attached is a comparison of the marketer rates billed by Columbia and Columbia's Gas Cost Adjustment for the applicable month. Information for the months of months April 2009 - July 2013 is attached. Information for the entire past five years is not available.

Columbia Gas of Kentucky, Inc.  
Customer Choice Program  
Marketer Billing Rates

PSC Case No. 2013-00167  
KY AG 1-35  
Attachment A  
Respondent: Judy M Cooper

ACTIVE MARKETER BILL/CODES AND PGAS -- FOR THE MONTH OF  
JULY, 2013 (UNIT ONE BILLING: 06/28/13)

MARKETER NAME	RATE(\$MCF)
1 VRC	\$4.60
2 VRC	\$5.22
3 VRC	\$5.13
4 VRC	\$7.79
5 VRC	\$5.46
6 VRC	\$6.79
7 VRC	\$8.49
8 VRC	\$5.53
9 VRC	\$8.99
10 VRC	\$6.43
11 VRC	\$4.49
12 VRC	\$7.49
13 VRC	\$5.90
14 VRC	\$5.39
15 VRC	\$12.69
16 VRC	\$6.49
17 VRC	\$7.79
18 VRC	\$5.85
19 VRC	\$6.99
20 VRC	\$7.09
21 VRC	\$5.99
22 VRC	\$4.90
23 VRC	\$7.10
24 VRC	\$4.19
25 VRC	\$6.95
26 VRC	\$5.29
27 VRC	\$6.59
28 VRC	\$7.99
29 VRC	\$5.56
30 ADT	\$8.99
31 ADT	\$9.59
32 ADT	\$6.79
33 ADT	\$5.99
34 ADT	\$7.64
35 ADT	\$7.44
36 ADT	\$7.65
37 ADT	\$8.49
38 ADT	\$7.69
39 ADT	\$7.35
40 RMO	\$7.99
41 RMO	\$8.99
42 RMO	\$8.24
43 RMO	\$6.99
44 RMO	\$7.49
45 RMO	\$6.99

46 RMO	\$9.49
47 RMO	\$7.24
48 RMO	\$7.07
49 RMO	\$7.49
50 RMO	\$6.94
51 RMO	\$8.49
52 RMO	\$4.99
53 RMO	\$6.69
54 RMO	\$7.49
55 RMO	\$8.50
56 RMO	\$6.74
57 RMO	\$7.90
58 RMO	\$7.74
59 RMO	\$7.89
60 RMO	\$6.49
61 RMO	\$6.54
62 RMO	\$6.99
63 RMO	\$5.49
64 RMO	\$5.74
65 RMO	\$6.24
66 RMO	\$5.99
67 RMO	\$5.59
68 RMO	\$5.24
69 RMO	\$4.74
70 RMO	\$5.35
71 RMO	\$6.39
72 RMO	\$5.85
73 RMO	\$6.14
74 QF	\$6.90
75 QF	\$5.57
76 QF	\$5.81
77 QF	\$5.97
78 QF	\$4.99
79 QF	\$6.65
80 QF	\$5.25
81 QF	\$6.40
82 DGY	\$5.97
83 DGY	\$6.48
84 TXY	\$3.99
85 TXY	\$5.85
86 TXY	\$5.85
87 TXY	\$5.85
88 TXY	\$5.85
89 TT	\$5.79
90 TT	\$5.79
91 TT	\$5.99
92 TT	\$6.99
93 TT	\$4.99
94 DH	\$4.19
95 DH	\$4.19
96 DH	\$6.75
97 DH	\$4.99
98 DH	\$7.25
99 CKY GCA	\$5.1354

PSC Case No. 2013-00167  
 KY AG 1-35  
 Attachment A  
 Respondent: Judy M Cooper

Customer Choice Program  
Marketer Billing Rates

PSC Case No. 2013-00167  
KY AG 1-35  
Attachment A  
Respondent: Judy M Cooper

ACTIVE MARKETER BILL/CODES AND PGAS -- FOR  
THE MONTH OF JUNE, 2013 (UNIT ONE BILLING:  
05/30/13)

MARKETER NAME	RATE(\$MCF)
1 VRC	\$4.60
2 VRC	\$5.22
3 VRC	\$5.13
4 VRC	\$7.99
5 VRC	\$5.39
6 VRC	\$6.79
7 VRC	\$8.49
8 VRC	\$5.53
9 VRC	\$8.99
10 VRC	\$6.43
11 VRC	\$4.49
12 VRC	\$7.49
13 VRC	\$5.90
14 VRC	\$5.39
15 VRC	\$12.69
16 VRC	\$6.49
17 VRC	\$7.79
18 VRC	\$5.85
19 VRC	\$6.99
20 VRC	\$7.09
21 VRC	\$5.99
22 VRC	\$4.90
23 VRC	\$7.10
24 VRC	\$4.19
25 VRC	\$6.95
26 VRC	\$5.29
27 VRC	\$6.59
28 VRC	\$7.99
29 VRC	\$5.56
30 ADT	\$8.99
31 ADT	\$9.59
32 ADT	\$6.79
33 ADT	\$5.99
34 ADT	\$7.64
35 ADT	\$7.44
36 ADT	\$7.65
37 ADT	\$8.49
38 ADT	\$7.69
39 ADT	\$7.35
40 RMO	\$7.99
41 RMO	\$8.99
42 RMO	\$8.24
43 RMO	\$6.99
44 RMO	\$7.49
45 RMO	\$6.99
46 RMO	\$9.49
47 RMO	\$7.24

48 RMO	\$7.07
49 RMO	\$7.49
50 RMO	\$6.94
51 RMO	\$8.49
52 RMO	\$4.99
53 RMO	\$6.69
54 RMO	\$7.49
55 RMO	\$8.50
56 RMO	\$6.74
57 RMO	\$7.90
58 RMO	\$7.74
59 RMO	\$7.89
60 RMO	\$6.49
61 RMO	\$6.54
62 RMO	\$6.99
63 RMO	\$5.49
64 RMO	\$5.74
65 RMO	\$6.24
66 RMO	\$5.99
67 RMO	\$5.59
68 RMO	\$5.24
69 RMO	\$4.74
70 RMO	\$5.35
71 RMO	\$6.39
72 RMO	\$5.85
73 RMO	\$6.14
74 QF	\$6.90
75 QF	\$5.57
76 QF	\$5.81
77 QF	\$5.97
78 QF	\$4.99
79 QF	\$6.67
80 QF	\$5.25
81 QF	\$6.43
82 DGY	\$5.97
83 DGY	\$7.53
84 TXY	\$3.99
85 TXY	\$5.94
86 TXY	\$5.94
87 TXY	\$5.94
88 TXY	\$5.94
89 TT	\$5.69
90 TT	\$5.69
91 TT	\$5.99
92 TT	\$6.99
93 TT	\$4.99
94 DH	\$4.19
95 DH	\$4.19
96 DH	\$6.75
97 DH	\$4.99
98 DH	\$7.25
CKY GCA	\$5.1354

PSC Case No. 2013-00167  
 KY AG 1-35  
 Attachment A  
 Respondent: Judy M Cooper



Customer Choice Program  
Marketer Billing Rates

PSC Case No. 2013-00167  
KY AG 1-35  
Attachment A  
Respondent: Judy M Cooper

ATIVE MARKETER BILL/CODES AND PGAS -- FOR  
THE MONTH OF MAY, 2013 (UNIT ONE BILLING:  
04/30/13)

MARKETER NAME	RATE(\$MCF)
1 VRC	\$4.60
2 VRC	\$9.79
3 VRC	\$7.59
4 VRC	\$7.49
5 VRC	\$5.39
6 VRC	\$6.79
7 VRC	\$8.49
8 VRC	\$5.53
9 VRC	\$8.99
10 VRC	\$6.43
11 VRC	\$4.49
12 VRC	\$7.49
13 VRC	\$5.90
14 VRC	\$5.39
15 VRC	\$12.69
16 VRC	\$6.49
17 VRC	\$7.79
18 VRC	\$5.85
19 VRC	\$6.99
20 VRC	\$7.09
21 VRC	\$5.99
22 VRC	\$4.90
23 VRC	\$7.10
24 VRC	\$4.19
25 VRC	\$6.95
26 VRC	\$5.29
27 VRC	\$6.59
28 VRC	\$7.99
29 VRC	\$5.56
30 ADT	\$8.99
31 ADT	\$9.59
32 ADT	\$6.79
33 ADT	\$5.99
34 ADT	\$7.64
35 ADT	\$7.44
36 ADT	\$7.65
37 ADT	\$8.49
38 ADT	\$7.69
39 ADT	\$7.35
40 RMO	\$7.99
41 RMO	\$8.99
42 RMO	\$8.24
43 RMO	\$6.99
44 RMO	\$6.99
45 RMO	\$6.99
46 RMO	\$9.49
47 RMO	\$7.24

48 RMO	\$6.98
49 RMO	\$6.99
50 RMO	\$6.77
51 RMO	\$8.49
52 RMO	\$4.99
53 RMO	\$6.52
54 RMO	\$7.49
55 RMO	\$8.50
56 RMO	\$6.74
57 RMO	\$7.90
58 RMO	\$7.74
59 RMO	\$7.89
60 RMO	\$6.49
61 RMO	\$6.37
62 RMO	\$6.99
63 RMO	\$5.49
64 RMO	\$5.74
65 RMO	\$6.24
66 RMO	\$5.99
67 RMO	\$5.59
68 RMO	\$5.24
69 RMO	\$4.74
70 RMO	\$5.35
71 RMO	\$6.22
72 RMO	\$5.85
73 RMO	\$6.14
74 QF	\$6.90
75 QF	\$5.57
76 QF	\$5.81
77 QF	\$5.97
78 QF	\$4.99
79 QF	\$6.53
80 QF	\$5.25
81 QF	\$6.28
82 DGY	\$5.97
83 DGY	\$7.53
84 TXY	\$3.99
85 TXY	\$3.99
86 TXY	\$3.99
87 TXY	\$3.99
88 TXY	\$3.99
89 TT	\$5.69
90 TT	\$5.69
91 TT	\$5.57
92 TT	\$6.99
93 TT	\$4.99
94 DH	\$4.19
95 DH	\$4.19
96 DH	\$6.75
97 DH	\$4.99
98 DH	\$7.25
CKY GCA	\$4.1237

PSC Case No. 2013-00167  
 KY AG 1-35  
 Attachment A  
 Respondent: Judy M Cooper

Customer Choice Program  
Marketer Billing Rates

PSC Case No. 2013-00167  
KY AG 1-35  
Attachment A  
Respondent: Judy M Cooper

SELECTIVE MARKETER BILL/CODES AND PGAS -- FOR  
THE MONTH OF APRIL, 2013 (UNIT ONE BILLING:  
04/01/13)

MARKETER NAME	RATE(\$MCF)
1 VRC	\$4.60
2 VRC	\$9.79
3 VRC	\$7.59
4 VRC	\$7.09
5 VRC	\$5.39
6 VRC	\$6.79
7 VRC	\$8.49
8 VRC	\$5.53
9 VRC	\$8.99
10 VRC	\$6.43
11 VRC	\$4.49
12 VRC	\$7.49
13 VRC	\$5.90
14 VRC	\$5.39
15 VRC	\$12.69
16 VRC	\$6.49
17 VRC	\$7.79
18 VRC	\$5.85
19 VRC	\$6.99
20 VRC	\$7.09
21 VRC	\$5.99
22 VRC	\$4.90
23 VRC	\$7.10
24 VRC	\$4.19
25 VRC	\$6.95
26 VRC	\$5.29
27 VRC	\$6.59
28 VRC	\$7.99
29 VRC	\$5.56
30 ADT	\$8.99
31 ADT	\$9.59
32 ADT	\$6.79
33 ADT	\$5.99
34 ADT	\$7.64
35 ADT	\$7.44
36 ADT	\$7.65
37 ADT	\$8.49
38 ADT	\$7.69
39 ADT	\$7.35
40 RMO	\$7.99
41 RMO	\$8.99
42 RMO	\$8.24
43 RMO	\$6.99
44 RMO	\$6.99
45 RMO	\$6.99
46 RMO	\$9.49

47 RMO	\$7.24
48 RMO	\$6.72
49 RMO	\$6.99
50 RMO	\$6.22
51 RMO	\$8.49
52 RMO	\$4.99
53 RMO	\$5.97
54 RMO	\$7.49
55 RMO	\$8.50
56 RMO	\$6.74
57 RMO	\$7.90
58 RMO	\$7.74
59 RMO	\$7.89
60 RMO	\$6.49
61 RMO	\$5.82
62 RMO	\$6.99
63 RMO	\$5.49
64 RMO	\$5.74
65 RMO	\$6.24
66 RMO	\$5.99
67 RMO	\$5.59
68 RMO	\$5.24
69 RMO	\$4.74
70 RMO	\$5.35
71 RMO	\$5.67
72 RMO	\$5.85
73 RMO	\$6.14
74 QF	\$6.90
75 QF	\$5.57
76 QF	\$5.81
77 QF	\$5.97
78 QF	\$4.99
79 QF	\$5.97
80 QF	\$5.25
81 QF	\$5.72
82 DGY	\$5.97
83 DGY	\$6.57
84 TXY	\$5.69
85 TXY	\$5.69
86 TXY	\$5.69
87 TXY	\$5.69
88 TXY	\$5.69
89 TT	\$5.43
90 TT	\$5.43
91 TT	\$5.57
92 TT	\$6.99
93 TT	\$4.99
94 DH	\$4.19
95 DH	\$4.19
96 DH	\$6.75
97 DH	\$4.99
98 DH	\$7.25
99 CKY GCA	\$4.1237

PSC Case No. 2013-00167  
 KY AG 1-35  
 Attachment A  
 Respondent: Judy M Cooper

Customer Choice Program  
Marketer Billing Rates

PSC Case No. 2013-00167  
KY AG 1-35  
Attachment A  
Respondent: Judy M Cooper

ACTIVE MARKETER BILL/CODES AND PGAS – FOR THE MONTH OF  
MARCH, 2013 (UNIT ONE BILLING: 02/28/13)

MARKETER NAME	RATE(\$MCF)
1 VRC	\$4.60
2 VRC	\$9.79
3 VRC	\$7.59
4 VRC	\$6.99
5 VRC	\$5.39
6 VRC	\$6.79
7 VRC	\$8.49
8 VRC	\$5.53
9 VRC	\$8.99
10 VRC	\$6.43
11 VRC	\$4.49
12 VRC	\$7.49
13 VRC	\$5.90
14 VRC	\$5.39
15 VRC	\$12.69
16 VRC	\$6.49
17 VRC	\$7.79
18 VRC	\$5.85
19 VRC	\$6.99
20 VRC	\$7.09
21 VRC	\$5.99
22 VRC	\$4.90
23 VRC	\$7.10
24 VRC	\$4.19
25 VRC	\$6.95
26 VRC	\$5.29
27 VRC	\$6.59
28 VRC	\$7.99
29 VRC	\$5.56
30 ADT	\$8.99
31 ADT	\$9.59
32 ADT	\$6.86
33 ADT	\$5.99
34 ADT	\$7.64
35 ADT	\$7.44
36 ADT	\$7.65
37 ADT	\$8.49
38 ADT	\$7.69
39 ADT	\$7.35
40 RMO	\$7.99
41 RMO	\$8.99
42 RMO	\$8.24
43 RMO	\$6.99
44 RMO	\$6.99
45 RMO	\$6.99
46 RMO	\$9.49

47 RMO	\$7.24
48 RMO	\$6.61
49 RMO	\$6.99
50 RMO	\$6.02
51 RMO	\$8.49
52 RMO	\$4.99
53 RMO	\$5.77
54 RMO	\$7.49
55 RMO	\$8.50
56 RMO	\$6.74
57 RMO	\$7.90
58 RMO	\$7.74
59 RMO	\$7.89
60 RMO	\$6.49
61 RMO	\$5.62
62 RMO	\$6.99
63 RMO	\$5.49
64 RMO	\$5.74
65 RMO	\$6.24
66 RMO	\$5.99
67 RMO	\$5.59
68 RMO	\$5.24
69 RMO	\$4.74
70 RMO	\$5.35
71 RMO	\$5.47
72 RMO	\$5.85
73 RMO	\$6.14
74 KQ	\$7.48
75 KQ	\$6.99
76 KQ	\$5.59
77 KQ	\$6.99
78 KQ	\$5.39
79 QF	\$6.90
80 QF	\$6.10
81 QF	\$5.81
82 QF	\$5.97
83 QF	\$4.99
84 QF	\$5.73
85 QF	\$5.25
86 QF	\$5.48
87 DGY	\$5.97
88 DGY	\$5.92
89 TXY	\$5.69
90 TXY	\$5.69
91 TXY	\$5.69
92 TXY	\$5.69
93 TXY	\$5.69
94 TT	\$5.53
95 TT	\$5.53
96 TT	\$5.38
97 TT	\$6.99
98 TT	\$4.99
99 DH	\$4.19
100 DH	\$4.19
101 DH	\$6.75
102 DH	\$4.99

PSC Case No. 2013-00167  
KY AG 1-35  
Attachment A  
Respondent: Judy M Cooper

103 DH  
CKY GCA

\$7.25  
\$4.1237

PSC Case No. 2013-00167  
KY AG 1-35  
Attachment A  
Respondent: Judy M Cooper

Customer Choice Program  
Marketer Billing Rates

PSC Case No. 2013-00167  
KY AG 1-35  
Attachment A  
Respondent: Judy M Cooper

ACTIVE MARKETER BILL/CODES AND PGAS -- FOR THE MONTH OF  
FEBRUARY, 2013 (UNIT ONE BILLING: 01/30/13)

MARKETER NAME	RATE(\$MCF)
1 VRC	\$4.60
2 VRC	\$9.79
3 VRC	\$7.59
4 VRC	\$6.99
5 VRC	\$5.39
6 VRC	\$6.79
7 VRC	\$8.49
8 VRC	\$5.53
9 VRC	\$8.99
10 VRC	\$6.43
11 VRC	\$4.49
12 VRC	\$7.49
13 VRC	\$5.90
14 VRC	\$5.39
15 VRC	\$12.69
16 VRC	\$6.49
17 VRC	\$7.79
18 VRC	\$5.85
19 VRC	\$6.99
20 VRC	\$7.09
21 VRC	\$5.99
22 VRC	\$4.90
23 VRC	\$7.10
24 VRC	\$4.19
25 VRC	\$6.95
26 VRC	\$5.29
27 VRC	\$6.59
28 VRC	\$7.99
29 VRC	\$5.56
30 ADT	\$8.99
31 ADT	\$9.59
32 ADT	\$6.86
33 ADT	\$5.99
34 ADT	\$7.64
35 ADT	\$7.44
36 ADT	\$7.65
37 ADT	\$8.49
38 ADT	\$7.69
39 ADT	\$7.35
40 RMO	\$7.99
41 RMO	\$8.99
42 RMO	\$8.24
43 RMO	\$6.99
44 RMO	\$6.99
45 RMO	\$6.99



46 RMO	\$9.49
47 RMO	\$7.24
48 RMO	\$7.29
49 RMO	\$6.99
50 RMO	\$6.14
51 RMO	\$8.49
52 RMO	\$4.99
53 RMO	\$5.89
54 RMO	\$7.49
55 RMO	\$8.50
56 RMO	\$6.74
57 RMO	\$7.90
58 RMO	\$7.74
59 RMO	\$7.89
60 RMO	\$6.49
61 RMO	\$5.74
62 RMO	\$6.99
63 RMO	\$5.49
64 RMO	\$5.74
65 RMO	\$6.24
66 RMO	\$5.99
67 RMO	\$5.59
68 RMO	\$5.24
69 RMO	\$4.74
70 RMO	\$5.35
71 RMO	\$5.59
72 RMO	\$5.85
73 RMO	\$6.14
74 KQ	\$7.48
75 KQ	\$6.99
76 KQ	\$5.59
77 KQ	\$6.99
78 KQ	\$5.39
79 QF	\$6.90
80 QF	\$6.10
81 QF	\$5.81
82 QF	\$5.97
83 QF	\$4.99
84 QF	\$6.21
85 QF	\$5.25
86 QF	\$5.96
87 DGY	\$5.97
88 DGY	\$5.92
89 TT	\$5.59
90 TT	\$5.59
91 TT	\$5.38
92 TT	\$6.99
93 TT	\$4.99
94 DH	\$4.19
95 DH	\$4.19
96 DH	\$6.75
97 DH	\$4.11
98 DH	\$7.25
99 CKY GCA	\$4.2366

PSC Case No. 2013-00167  
 KY AG 1-35  
 Attachment A  
 Respondent: Judy M Cooper

Columbia Gas of Kentucky, Inc.  
Customer Choice Program  
Marketer Billing Rates

PSC Case No. 2013-00167  
KY AG 1-35  
Attachment A  
Respondent: Judy M Cooper

ACTIVE MARKETER BILL/CODES AND PGAS – FOR THE MONTH OF  
JANUARY, 2013 (UNIT ONE BILLING: 12/31/12)

MARKETER NAME	RATE(\$MCF)
1 VRC	\$4.60
2 VRC	\$9.79
3 VRC	\$7.59
4 VRC	\$6.99
5 VRC	\$5.39
6 VRC	\$6.79
7 VRC	\$8.49
8 VRC	\$5.53
9 VRC	\$8.99
10 VRC	\$6.43
11 VRC	\$4.49
12 VRC	\$7.49
13 VRC	\$5.90
14 VRC	\$5.39
15 VRC	\$12.69
16 VRC	\$6.49
17 VRC	\$7.79
18 VRC	\$5.85
19 VRC	\$6.99
20 VRC	\$7.09
21 VRC	\$5.99
22 VRC	\$4.90
23 VRC	\$7.10
24 VRC	\$4.19
25 VRC	\$6.95
26 VRC	\$5.29
27 VRC	\$6.59
28 VRC	\$7.99
29 VRC	\$5.56
30 ADT	\$8.99
31 ADT	\$9.59
32 ADT	\$6.86
33 ADT	\$5.99
34 ADT	\$7.64
35 ADT	\$7.44
36 ADT	\$7.65
37 ADT	\$8.49
38 ADT	\$7.69
39 ADT	\$7.35
40 RMO	\$7.99
41 RMO	\$8.99
42 RMO	\$8.24
43 RMO	\$6.99
44 RMO	\$6.99

45 RMO	\$6.99
46 RMO	\$9.49
47 RMO	\$7.24
48 RMO	\$7.29
49 RMO	\$6.99
50 RMO	\$6.49
51 RMO	\$8.49
52 RMO	\$4.99
53 RMO	\$6.24
54 RMO	\$7.49
55 RMO	\$8.50
56 RMO	\$6.74
57 RMO	\$7.90
58 RMO	\$7.74
59 RMO	\$7.89
60 RMO	\$6.49
61 RMO	\$6.09
62 RMO	\$6.99
63 RMO	\$5.49
64 RMO	\$5.74
65 RMO	\$6.24
66 RMO	\$5.99
67 RMO	\$5.59
68 RMO	\$5.24
69 RMO	\$4.74
70 RMO	\$5.35
71 RMO	\$5.94
72 RMO	\$5.85
73 RMO	\$6.14
74 KQ	\$7.48
75 KQ	\$6.99
76 KQ	\$5.59
77 KQ	\$6.99
78 KQ	\$5.39
79 QF	\$6.90
80 QF	\$6.10
81 QF	\$5.81
82 QF	\$5.97
83 QF	\$4.99
84 QF	\$6.21
85 QF	\$5.25
86 QF	\$5.96
87 DGY	\$5.97
88 DGY	\$5.97
89 TT	\$5.79
90 TT	\$5.79
91 TT	\$5.79
92 TT	\$6.99
93 TT	\$4.99
CKY GCA	\$4.2366

PSC Case No. 2013-00167  
 KY AG 1-35  
 Attachment A  
 Respondent: Judy M Cooper

Columbia Gas of Kentucky, Inc.  
Customer Choice Program  
Marketer Billing Rates

PSC Case No. 2013-00167  
KY AG 1-35  
Attachment A  
Respondent: Judy M Cooper

ACTIVE MARKETER BILL/CODES AND PGAS – FOR THE MONTH OF  
DECEMBER, 2012 (UNIT ONE BILLING: 11/28/12)

MARKETER NAME	RATE(\$MCF)
1 VRC	\$4.60
2 VRC	\$9.79
3 VRC	\$7.59
4 VRC	\$6.99
5 VRC	\$5.39
6 VRC	\$6.79
7 VRC	\$8.49
8 VRC	\$5.53
9 VRC	\$8.99
10 VRC	\$6.43
11 VRC	\$4.49
12 VRC	\$7.49
13 VRC	\$5.90
14 VRC	\$5.39
15 VRC	\$12.69
16 VRC	\$6.49
17 VRC	\$7.79
18 VRC	\$5.85
19 VRC	\$6.99
20 VRC	\$7.09
21 VRC	\$5.99
22 VRC	\$4.90
23 VRC	\$7.10
24 VRC	\$4.19
25 VRC	\$6.95
26 VRC	\$5.29
27 VRC	\$6.59
28 VRC	\$7.99
29 VRC	\$5.56
30 ADT	\$8.99
31 ADT	\$9.59
32 ADT	\$6.86
33 ADT	\$5.99
34 ADT	\$7.64
35 ADT	\$7.44
36 ADT	\$7.65
37 ADT	\$8.49
38 ADT	\$7.69
39 ADT	\$7.35
40 RMO	\$7.99
41 RMO	\$8.99
42 RMO	\$8.24
43 RMO	\$7.48
44 RMO	\$6.99
45 RMO	\$6.99

46 RMO	\$9.49
47 RMO	\$7.24
48 RMO	\$7.29
49 RMO	\$6.99
50 RMO	\$6.26
51 RMO	\$8.49
52 RMO	\$4.99
53 RMO	\$6.01
54 RMO	\$7.49
55 RMO	\$8.50
56 RMO	\$6.74
57 RMO	\$7.90
58 RMO	\$7.74
59 RMO	\$7.89
60 RMO	\$6.49
61 RMO	\$5.86
62 RMO	\$6.99
63 RMO	\$5.49
64 RMO	\$5.74
65 RMO	\$6.24
66 RMO	\$5.99
67 RMO	\$5.59
68 RMO	\$5.24
69 RMO	\$4.74
70 RMO	\$5.35
71 RMO	\$5.71
72 RMO	\$5.85
73 RMO	\$6.14
74 KQ	\$7.48
75 KQ	\$6.99
76 KQ	\$5.59
77 KQ	\$6.99
78 KQ	\$5.39
79 QF	\$6.90
80 QF	\$4.00
81 QF	\$3.79
82 QF	\$5.97
83 QF	\$4.99
84 QF	\$6.00
85 QF	\$5.25
86 QF	\$5.75
87 DGY	\$5.97
88 DGY	\$6.55
89 TT	\$5.79
90 TT	\$5.79
91 TT	\$5.79
92 TT	\$6.99
93 TT	\$4.99
CKY GCA	\$4.2366

PSC Case No. 2013-00167  
 KY AG 1-35  
 Attachment A  
 Respondent: Judy M Cooper

Columbia Gas of Kentucky, Inc.  
Customer Choice Program  
Marketer Billing Rates

PSC Case No. 2013-00167  
KY AG 1-35  
Attachment A  
Respondent: Judy M Cooper

ACTIVE MARKETER BILL/CODES AND PGAS -- FOR THE MONTH OF  
NOVEMBER, 2012 (UNIT ONE BILLING: 10/26/12)

MARKETER NAME	RATE(\$MCF)
1 VRC	\$4.60
2 VRC	\$9.79
3 VRC	\$7.59
4 VRC	\$6.99
5 VRC	\$5.39
6 VRC	\$6.79
7 VRC	\$8.49
8 VRC	\$13.50
9 VRC	\$8.99
10 VRC	\$6.43
11 VRC	\$4.49
12 VRC	\$7.49
13 VRC	\$5.90
14 VRC	\$5.39
15 VRC	\$12.69
16 VRC	\$6.49
17 VRC	\$7.79
18 VRC	\$5.85
19 VRC	\$6.99
20 VRC	\$7.09
21 VRC	\$5.99
22 VRC	\$4.90
23 VRC	\$7.10
24 VRC	\$4.19
25 VRC	\$6.95
26 VRC	\$5.29
27 VRC	\$6.59
28 VRC	\$7.99
29 VRC	\$5.56
30 ADT	\$8.99
31 ADT	\$9.59
32 ADT	\$6.86
33 ADT	\$5.99
34 ADT	\$7.64
35 ADT	\$7.44
36 ADT	\$7.65
37 ADT	\$8.49
38 ADT	\$7.69
39 ADT	\$7.35
40 RMO	\$7.99
41 RMO	\$8.99
42 RMO	\$8.24
43 RMO	\$7.48
44 RMO	\$6.99
45 RMO	\$6.99

46 RMO	\$9.49
47 RMO	\$7.24
48 RMO	\$7.29
49 RMO	\$6.99
50 RMO	\$5.81
51 RMO	\$8.49
52 RMO	\$4.99
53 RMO	\$5.56
54 RMO	\$7.49
55 RMO	\$8.50
56 RMO	\$6.74
57 RMO	\$7.90
58 RMO	\$7.74
59 RMO	\$7.89
60 RMO	\$6.49
61 RMO	\$5.41
62 RMO	\$6.99
63 RMO	\$5.49
64 RMO	\$5.74
65 RMO	\$6.24
66 RMO	\$5.99
67 RMO	\$5.59
68 RMO	\$5.24
69 RMO	\$4.74
70 RMO	\$5.35
71 RMO	\$5.60
72 RMO	\$5.85
73 RMO	\$6.14
74 KQ	\$7.48
75 KQ	\$6.99
76 KQ	\$5.59
77 KQ	\$6.99
78 KQ	\$5.39
79 QF	\$6.90
80 QF	\$4.00
81 QF	\$3.79
82 QF	\$5.97
83 QF	\$4.99
84 QF	\$5.53
85 QF	\$5.25
86 DGY	\$5.97
87 DGY	\$6.55
88 TT	\$5.99
89 TT	\$5.99
90 TT	\$5.99
91 TT	\$6.99
92 TT	\$4.99
CKY GCA	\$3.5459

PSC Case No. 2013-00167  
 KY AG 1-35  
 Attachment A  
 Respondent: Judy M Cooper

Columbia Gas of Kentucky, Inc.  
Customer Choice Program  
Marketer Billing Rates

PSC Case No. 2013-00167  
KY AG 1-35  
Attachment A  
Respondent: Judy M Cooper

ACTIVE MARKETER BILL/CODES AND PGAS -- FOR THE MONTH OF  
OCTOBER, 2012 (UNIT ONE BILLING: 09/27/12)

MARKETER NAME	RATE(\$MCF)
1 VRC	\$4.60
2 VRC	\$9.79
3 VRC	\$7.59
4 VRC	\$5.99
5 VRC	\$5.39
6 VRC	\$6.79
7 VRC	\$8.49
8 VRC	\$13.50
9 VRC	\$8.99
10 VRC	\$6.43
11 VRC	\$4.49
12 VRC	\$7.49
13 VRC	\$5.90
14 VRC	\$5.39
15 VRC	\$12.69
16 VRC	\$6.49
17 VRC	\$7.79
18 VRC	\$5.85
19 VRC	\$6.99
20 VRC	\$7.09
21 VRC	\$5.99
22 VRC	\$4.90
23 VRC	\$7.10
24 VRC	\$4.19
25 VRC	\$6.95
26 VRC	\$5.29
27 VRC	\$6.59
28 VRC	\$7.99
29 VRC	\$5.56
30 ADT	\$8.49
31 ADT	\$9.29
32 ADT	\$6.86
33 ADT	\$5.99
34 ADT	\$7.64
35 ADT	\$7.44
36 ADT	\$7.65
37 ADT	\$8.49
38 ADT	\$7.69
39 ADT	\$7.35
40 RMO	\$7.99
41 RMO	\$8.99
42 RMO	\$8.24
43 RMO	\$7.48
44 RMO	\$6.99



45 RMO	\$6.99
46 RMO	\$9.49
47 RMO	\$7.24
48 RMO	\$7.29
49 RMO	\$6.99
50 RMO	\$5.42
51 RMO	\$8.49
52 RMO	\$4.99
53 RMO	\$5.17
54 RMO	\$7.49
55 RMO	\$8.50
56 RMO	\$6.74
57 RMO	\$7.90
58 RMO	\$7.74
59 RMO	\$7.89
60 RMO	\$6.49
61 RMO	\$5.02
62 RMO	\$6.99
63 RMO	\$5.49
64 RMO	\$5.74
65 RMO	\$6.24
66 RMO	\$5.99
67 RMO	\$5.59
68 RMO	\$5.24
69 RMO	\$4.74
70 RMO	\$5.35
71 RMO	\$5.60
72 RMO	\$5.85
73 RMO	\$6.14
74 KQ	\$7.48
75 KQ	\$6.99
76 KQ	\$5.59
77 KQ	\$5.99
78 KQ	\$5.39
79 QF	\$6.90
80 QF	\$4.00
81 QF	\$3.79
82 QF	\$5.97
83 QF	\$4.99
84 QF	\$5.13
85 QF	\$5.25
86 DGY	\$5.97
87 DGY	\$5.66
88 TT	\$4.49
89 TT	\$4.59
90 TT	\$4.49
91 TT	\$5.99
92 TT	\$4.99
CKY GCA	\$3.5459

PSC Case No. 2013-00167  
 KY AG 1-35  
 Attachment A  
 Respondent: Judy M Cooper

Columbia Gas of Kentucky, Inc.  
Customer Choice Program  
Marketer Billing Rates

PSC Case No. 2013-00167  
KY AG 1-35  
Attachment A  
Respondent: Judy M Cooper

ACTIVE MARKETER BILL/CODES AND PGAS -- FOR THE MONTH OF  
SEPTEMBER 2012 (UNIT ONE BILLING: 08/28/12)

MARKETER NAME	RATE(\$MCF)
1 VRC	\$4.60
2 VRC	\$9.79
3 VRC	\$7.59
4 VRC	\$5.99
5 VRC	\$5.39
6 VRC	\$6.79
7 VRC	\$8.49
8 VRC	\$13.50
9 VRC	\$8.99
10 VRC	\$6.43
11 VRC	\$4.49
12 VRC	\$7.49
13 VRC	\$5.90
14 VRC	\$5.39
15 VRC	\$12.69
16 VRC	\$6.49
17 VRC	\$7.79
18 VRC	\$5.85
19 VRC	\$6.99
20 VRC	\$7.09
21 VRC	\$5.99
22 VRC	\$4.90
23 VRC	\$7.10
24 VRC	\$4.19
25 VRC	\$6.95
26 VRC	\$5.29
27 VRC	\$6.59
28 VRC	\$7.99
29 VRC	\$5.56
30 ADT	\$8.49
31 ADT	\$9.29
32 ADT	\$6.86
33 ADT	\$6.50
34 ADT	\$7.64
35 ADT	\$7.44
36 ADT	\$7.65
37 ADT	\$8.49
38 ADT	\$7.69
39 ADT	\$7.35
40 RMO	\$7.99
41 RMO	\$8.99
42 RMO	\$8.24
43 RMO	\$7.48
44 RMO	\$5.99
45 RMO	\$6.99

46 RMO	\$9.49
47 RMO	\$7.24
48 RMO	\$7.29
49 RMO	\$6.99
50 RMO	\$5.80
51 RMO	\$8.49
52 RMO	\$4.99
53 RMO	\$5.55
54 RMO	\$7.49
55 RMO	\$8.50
56 RMO	\$6.74
57 RMO	\$7.90
58 RMO	\$7.74
59 RMO	\$7.89
60 RMO	\$6.49
61 RMO	\$5.40
62 RMO	\$6.99
63 RMO	\$5.49
64 RMO	\$5.74
65 RMO	\$6.24
66 RMO	\$5.99
67 RMO	\$5.59
68 RMO	\$5.24
69 KQ	\$7.48
70 KQ	\$6.99
71 KQ	\$5.59
72 KQ	\$5.99
73 KQ	\$5.39
74 QF	\$6.90
75 QF	\$4.00
76 QF	\$3.79
77 QF	\$5.97
78 QF	\$4.99
79 QF	\$5.51
80 QF	\$5.25
81 DGY	\$5.97
82 DGY	\$5.61
83 TT	\$4.86
84 TT	\$4.96
85 TT	\$4.86
86 TT	\$4.99
87 TT	\$4.99
CKY GCA	\$3.5459

PSC Case No. 2013-00167  
 KY AG 1-35  
 Attachment A  
 Respondent: Judy M Cooper

Columbia Gas of Kentucky, Inc.  
Customer Choice Program  
Marketer Billing Rates

PSC Case No. 2013-00167  
KY AG 1-35  
Attachment A  
Respondent: Judy M Cooper

ACTIVE MARKETER BILL/CODES AND PGAS -- FOR THE MONTH OF  
AUGUST, 2012 (UNIT ONE BILLING: 07/30/12)

MARKETER NAME	RATE(\$MCF)
1 VRC	\$4.60
2 VRC	\$9.79
3 VRC	\$7.59
4 VRC	\$5.99
5 VRC	\$5.39
6 VRC	\$6.79
7 VRC	\$8.49
8 VRC	\$13.50
9 VRC	\$8.99
10 VRC	\$6.43
11 VRC	\$4.49
12 VRC	\$7.49
13 VRC	\$5.90
14 VRC	\$5.39
15 VRC	\$12.69
16 VRC	\$6.49
VRC	\$7.79
VRC	\$5.85
19 VRC	\$6.99
20 VRC	\$7.09
21 VRC	\$5.99
22 VRC	\$4.90
23 VRC	\$7.10
24 VRC	\$4.19
25 VRC	\$6.95
26 VRC	\$5.29
27 VRC	\$6.59
28 VRC	\$7.99
29 VRC	\$5.56
30 ADT	\$7.99
31 ADT	\$9.29
32 ADT	\$6.86
33 ADT	\$6.50
34 ADT	\$7.59
35 ADT	\$7.44
36 ADT	\$7.65
37 ADT	\$8.49
38 ADT	\$7.69
39 ADT	\$7.35
40 RMO	\$7.99
41 RMO	\$8.99
RMO	\$8.24
RMO	\$7.48
44 RMO	\$5.99
45 RMO	\$6.99

46 RMO	\$9.49
47 RMO	\$7.24
48 RMO	\$7.29
49 RMO	\$6.99
50 RMO	\$5.56
51 RMO	\$8.49
52 RMO	\$4.99
53 RMO	\$5.31
54 RMO	\$7.49
55 RMO	\$8.50
56 RMO	\$6.74
57 RMO	\$7.90
58 RMO	\$7.74
59 RMO	\$7.89
60 RMO	\$6.49
61 RMO	\$5.16
62 RMO	\$6.99
63 RMO	\$5.49
64 RMO	\$5.74
65 RMO	\$6.24
66 RMO	\$5.99
67 RMO	\$5.59
68 RMO	\$5.24
69 KQ	\$7.48
70 KQ	\$6.99
71 KQ	\$5.59
72 KQ	\$5.99
73 KQ	\$5.39
74 QF	\$6.90
75 QF	\$4.00
76 QF	\$3.79
77 QF	\$5.97
78 QF	\$4.99
79 QF	\$5.27
80 QF	\$5.25
81 DGY	\$5.97
82 DGY	\$4.96
83 TT	\$4.99
84 TT	\$4.99
85 TT	\$4.99
86 TT	\$4.99
87 TT	\$4.99
CKY GCA	\$3.7230

PSC Case No. 2013-00167  
 KY AG 1-35  
 Attachment A  
 Respondent: Judy M Cooper

Columbia Gas of Kentucky, Inc.  
Customer Choice Program  
Marketer Billing Rates

PSC Case No. 2013-00167  
KY AG 1-35  
Attachment A  
Respondent: Judy M Cooper

ACTIVE MARKETER BILL/CODES AND PGAS -- FOR THE MONTH OF  
JULY, 2012 (UNIT ONE BILLING: 06/28/12)

MARKETER NAME	RATE(\$MCF)
1 VRC	\$4.60
2 VRC	\$9.79
3 VRC	\$7.59
4 VRC	\$5.59
5 VRC	\$5.39
6 VRC	\$6.79
7 VRC	\$8.49
8 VRC	\$13.50
9 VRC	\$8.99
10 VRC	\$6.43
11 VRC	\$4.49
12 VRC	\$7.49
13 VRC	\$5.90
14 VRC	\$5.39
15 VRC	\$12.69
16 VRC	\$6.49
17 VRC	\$7.79
18 VRC	\$5.85
19 VRC	\$6.99
20 VRC	\$7.09
21 VRC	\$5.99
22 VRC	\$4.90
23 VRC	\$7.10
24 VRC	\$4.19
25 VRC	\$6.95
26 VRC	\$5.29
27 VRC	\$6.59
28 VRC	\$7.99
29 VRC	\$5.56
30 ADT	\$7.99
31 ADT	\$9.29
32 ADT	\$6.86
33 ADT	\$6.50
34 ADT	\$7.59
35 ADT	\$7.44
36 ADT	\$7.65
37 ADT	\$8.49
38 ADT	\$7.69
39 ADT	\$7.35
40 RMO	\$7.99
41 RMO	\$8.99
42 RMO	\$8.24
43 RMO	\$7.48
44 RMO	\$5.49
45 RMO	\$6.99

46 RMO	\$9.49
47 RMO	\$7.24
48 RMO	\$7.29
49 RMO	\$6.99
50 RMO	\$5.22
51 RMO	\$8.49
52 RMO	\$4.99
53 RMO	\$4.97
54 RMO	\$7.49
55 RMO	\$8.50
56 RMO	\$6.74
57 RMO	\$7.90
58 RMO	\$7.74
59 RMO	\$7.89
60 RMO	\$6.49
61 RMO	\$4.82
62 RMO	\$6.99
63 RMO	\$5.49
64 RMO	\$5.74
65 RMO	\$6.24
66 RMO	\$5.99
67 RMO	\$5.59
68 RMO	\$5.95
69 KQ	\$7.48
70 KQ	\$6.99
71 KQ	\$5.59
72 KQ	\$5.19
73 KQ	\$5.39
74 QF	\$6.90
75 QF	\$4.00
76 QF	\$3.79
77 QF	\$5.97
78 QF	\$4.99
79 QF	\$4.92
80 QF	\$5.25
81 DGY	\$5.70
82 DGY	\$4.62
83 TT	\$5.18
84 TT	\$5.18
85 TT	\$5.18
86 TT	\$5.18
87 TT	\$5.18
CKY GCA	\$3.7230

PSC Case No. 2013-00167  
 KY AG 1-35  
 Attachment A  
 Respondent: Judy M Cooper

Columbia Gas of Kentucky, Inc.  
Customer Choice Program  
Marketer Billing Rates

PSC Case No. 2013-00167  
KY AG 1-35  
Attachment A  
Respondent: Judy M Cooper

ACTIVE MARKETER BILL/CODES AND PGAS – FOR THE MONTH OF  
JUNE, 2012 (UNIT ONE BILLING: 05/30/12)

MARKETER NAME	RATE(\$MCF)
1 VRC	\$4.60
2 VRC	\$9.79
3 VRC	\$7.59
4 VRC	\$5.59
5 VRC	\$5.39
6 VRC	\$6.79
7 VRC	\$8.49
8 VRC	\$13.50
9 VRC	\$8.99
10 VRC	\$6.43
11 VRC	\$4.49
12 VRC	\$7.49
13 VRC	\$5.90
14 VRC	\$5.39
15 VRC	\$12.69
16 VRC	\$6.49
17 VRC	\$7.79
18 VRC	\$5.85
19 VRC	\$6.99
20 VRC	\$7.09
21 VRC	\$5.99
22 VRC	\$4.90
23 VRC	\$7.10
24 VRC	\$4.19
25 VRC	\$6.95
26 VRC	\$5.29
27 VRC	\$6.59
28 VRC	\$7.99
29 VRC	\$5.56
30 ADT	\$7.99
31 ADT	\$7.99
32 ADT	\$6.86
33 ADT	\$6.50
34 ADT	\$7.59
35 ADT	\$7.44
36 ADT	\$7.65
37 ADT	\$8.49
38 ADT	\$7.69
39 ADT	\$7.35
40 RMO	\$7.99
41 RMO	\$8.99
42 RMO	\$8.24
43 RMO	\$7.48
44 RMO	\$8.99
45 RMO	\$6.99



46 RMO	\$9.49
47 RMO	\$7.24
48 RMO	\$7.29
49 RMO	\$6.99
50 RMO	\$4.83
51 RMO	\$8.49
52 RMO	\$4.99
53 RMO	\$4.58
54 RMO	\$7.49
55 RMO	\$8.50
56 RMO	\$6.74
57 RMO	\$7.90
58 RMO	\$7.74
59 RMO	\$7.89
60 RMO	\$6.49
61 RMO	\$4.43
62 RMO	\$6.99
63 RMO	\$5.49
64 RMO	\$5.74
65 RMO	\$6.24
66 RMO	\$5.99
67 RMO	\$5.85
68 RMO	\$5.95
69 KQ	\$7.48
70 KQ	\$6.99
71 KQ	\$4.74
72 KQ	\$5.19
73 KQ	\$5.39
74 QF	\$6.90
75 QF	\$5.82
76 QF	\$5.51
77 QF	\$5.97
78 QF	\$4.99
79 QF	\$4.53
80 DGY	\$5.70
81 DGY	\$4.40
82 TT	\$5.45
83 TT	\$5.45
84 TT	\$5.45
85 TT	\$5.45
86 TT	\$5.45
CKY GCA	\$3.7230

PSC Case No. 2013-00167  
 KY AG 1-35  
 Attachment A  
 Respondent: Judy M Cooper

Columbia Gas of Kentucky, Inc.  
Customer Choice Program  
Marketer Billing Rates

PSC Case No. 2013-00167  
KY AG 1-35  
Attachment A  
Respondent: Judy M Cooper

ACTIVE MARKETER BILL/CODES AND PGAS – FOR THE MONTH  
OF MAY, 2012 (UNIT ONE BILLING: 04/30/12)

MARKETER NAME	RATE(\$MCF)
1 ADT	\$7.99
2 ADT	\$7.99
3 ADT	\$6.86
4 ADT	\$6.50
5 ADT	\$7.59
6 ADT	\$7.44
7 ADT	\$7.65
8 ADT	\$8.49
9 ADT	\$7.69
10 ADT	\$7.35
11 RMO	\$7.99
12 RMO	\$8.99
13 RMO	\$8.24
14 RMO	\$7.48
15 RMO	\$8.99
16 RMO	\$6.99
17 RMO	\$9.49
18 RMO	\$7.24
19 RMO	\$7.29
20 RMO	\$6.99
21 RMO	\$4.98
22 RMO	\$8.49
23 RMO	\$7.90
24 RMO	\$4.73
25 RMO	\$7.49
26 RMO	\$8.50
27 RMO	\$6.74
28 RMO	\$7.90
29 RMO	\$7.74
30 RMO	\$7.89
31 RMO	\$6.49
32 RMO	\$4.58
33 RMO	\$6.99
34 RMO	\$5.49
35 RMO	\$5.74
36 RMO	\$6.24
37 RMO	\$5.99
38 RMO	\$5.85
39 RMO	\$5.95
40 KQ	\$7.48
41 KQ	\$6.99
42 KQ	\$6.90
43 KQ	\$6.80
44 KQ	\$6.70
45 QF	\$6.90

46 QF	\$5.82
47 QF	\$5.51
QF	\$5.97
QF	\$4.99
50 VRT	\$4.60
51 VRT	\$9.79
52 VRT	\$7.59
53 VRT	\$5.99
54 VRT	\$8.19
55 VRT	\$6.79
56 VRT	\$8.49
57 VRT	\$13.50
58 VRT	\$8.99
59 VRT	\$6.43
60 VRT	\$4.49
61 VRT	\$7.49
62 VRT	\$5.90
63 VRT	\$5.39
64 VRT	\$12.69
65 VRT	\$6.49
66 VRT	\$7.79
67 VRT	\$5.85
68 VRT	\$6.99
69 VRT	\$7.09
70 VRT	\$5.99
71 VRT	\$4.90
72 VRT	\$7.10
VRT	\$4.19
VRT	\$6.95
75 VRT	\$5.29
76 VRT	\$6.59
77 VRT	\$7.99
78 VRT	\$5.56
79 DGY	\$5.70
80 DGY	\$3.34
81 TT	\$4.99
82 TT	\$4.99
83 TT	\$4.99
84 TT	\$4.99
85 TT	\$4.99
CKY GCA	\$5.6509

PSC Case No. 2013-00167  
 KY AG 1-35  
 Attachment A  
 Respondent: Judy M Cooper

Columbia Gas of Kentucky, Inc.  
Customer Choice Program  
Marketer Billing Rates

PSC Case No. 2013-00167  
KY AG 1-35  
Attachment A  
Respondent: Judy M Cooper

ACTIVE MARKETER BILL/CODES AND PGAS -- FOR THE MONTH  
OF APRIL, 2012 (UNIT ONE BILLING: 03/29/12)

MARKETER NAME	RATE(\$MCF)
1 ADT	\$8.99
2 ADT	\$8.29
3 ADT	\$6.86
4 ADT	\$6.50
5 ADT	\$8.54
6 ADT	\$7.44
7 ADT	\$7.65
8 ADT	\$8.49
9 ADT	\$7.69
10 ADT	\$7.35
11 RMO	\$7.99
12 RMO	\$8.99
13 RMO	\$8.24
14 RMO	\$7.48
15 RMO	\$8.99
16 RMO	\$6.99
17 RMO	\$9.49
18 RMO	\$7.24
19 RMO	\$7.29
20 RMO	\$7.19
21 RMO	\$5.24
22 RMO	\$8.49
23 RMO	\$7.90
24 RMO	\$4.99
25 RMO	\$7.49
26 RMO	\$8.50
27 RMO	\$6.74
28 RMO	\$7.90
29 RMO	\$7.74
30 RMO	\$7.89
31 RMO	\$6.49
32 RMO	\$4.84
33 RMO	\$6.99
34 RMO	\$5.49
35 RMO	\$5.74
36 RMO	\$6.24
37 RMO	\$5.99
38 RMO	\$5.85
39 RMO	\$5.95
40 KQ	\$7.48
41 KQ	\$6.99
42 KQ	\$6.90
43 KQ	\$6.80
44 KQ	\$6.70
45 QF	\$6.90

46 QF	\$5.82
47 QF	\$5.51
48 QF	\$5.97
49 QF	\$4.99
50 VRT	\$9.85
51 VRT	\$9.79
52 VRT	\$7.59
53 VRT	\$6.99
54 VRT	\$8.19
55 VRT	\$6.79
56 VRT	\$8.49
57 VRT	\$13.50
58 VRT	\$8.99
59 VRT	\$6.43
60 VRT	\$8.09
61 VRT	\$7.49
62 VRT	\$5.90
63 VRT	\$5.39
64 VRT	\$12.69
65 VRT	\$6.49
66 VRT	\$7.79
67 VRT	\$5.85
68 VRT	\$6.99
69 VRT	\$7.09
70 VRT	\$5.99
71 VRT	\$4.90
72 VRT	\$7.10
73 VRT	\$6.12
74 VRT	\$6.95
75 VRT	\$5.29
76 VRT	\$6.59
77 VRT	\$7.99
78 VRT	\$5.56
79 DGY	\$5.70
80 DGY	\$4.51
81 TT	\$5.25
82 TT	\$5.25
83 TT	\$5.25
84 TT	\$6.02
85 TT	\$6.02
CKY GCA	\$5.6509

PSC Case No. 2013-00167  
 KY AG 1-35  
 Attachment A  
 Respondent: Judy M Cooper

Columbia Gas of Kentucky, Inc.  
Customer Choice Program  
Marketer Billing Rates

PSC Case No. 2013-00167  
KY AG 1-35  
Attachment A  
Respondent: Judy M Cooper

ACTIVE MARKETER BILL/CODES AND PGAS -- FOR THE MONTH  
OF MARCH, 2012 (UNIT ONE BILLING: 02/29/12)

MARKETER NAME	RATE(\$MCF)
1 ADT	\$8.99
2 ADT	\$8.29
3 ADT	\$6.86
4 ADT	\$6.50
5 ADT	\$8.54
6 ADT	\$7.44
7 ADT	\$7.65
8 ADT	\$8.49
9 ADT	\$7.69
10 ADT	\$7.35
11 RMO	\$7.99
12 RMO	\$8.99
13 RMO	\$8.24
14 RMO	\$7.48
15 RMO	\$8.99
16 RMO	\$6.99
17 RMO	\$9.49
18 RMO	\$7.24
19 RMO	\$7.29
20 RMO	\$7.19
21 RMO	\$5.47
22 RMO	\$8.49
23 RMO	\$7.90
24 RMO	\$5.22
25 RMO	\$7.49
26 RMO	\$8.50
27 RMO	\$6.74
28 RMO	\$7.90
29 RMO	\$7.74
30 RMO	\$7.89
31 RMO	\$6.49
32 RMO	\$5.07
33 RMO	\$6.99
34 RMO	\$5.49
35 RMO	\$5.74
36 RMO	\$6.24
37 RMO	\$5.99
38 RMO	\$5.85
39 RMO	\$5.95
40 KQ	\$7.48
41 KQ	\$6.99
42 KQ	\$6.90
43 KQ	\$6.80
44 KQ	\$6.70
45 QF	\$6.90

46 QF	\$6.37
47 QF	\$6.04
48 QF	\$5.97
49 QF	\$4.99
50 VRT	\$9.85
51 VRT	\$9.79
52 VRT	\$7.59
53 VRT	\$6.99
54 VRT	\$8.19
55 VRT	\$6.79
56 VRT	\$8.49
57 VRT	\$13.50
58 VRT	\$8.99
59 VRT	\$6.43
60 VRT	\$8.09
61 VRT	\$7.49
62 VRT	\$5.90
63 VRT	\$5.39
64 VRT	\$12.69
65 VRT	\$6.49
66 VRT	\$7.79
67 VRT	\$5.85
68 VRT	\$6.99
69 VRT	\$7.09
70 VRT	\$5.99
71 VRT	\$4.90
72 VRT	\$7.10
73 VRT	\$6.12
74 VRT	\$6.95
75 VRT	\$5.29
76 VRT	\$6.59
77 VRT	\$7.99
78 VRT	\$5.56
79 DGY	\$5.70
80 DGY	\$4.62
81 TT	\$5.53
82 TT	\$5.53
83 TT	\$5.53
84 TT	\$6.02
85 TT	\$6.02
CKY GCA	\$5.6509

PSC Case No. 2013-00167  
 KY AG 1-35  
 Attachment A  
 Respondent: Judy M Cooper

Columbia Gas of Kentucky, Inc.  
Customer Choice Program  
Marketer Billing Rates

PSC Case No. 2013-00167  
KY AG 1-35  
Attachment A  
Respondent: Judy M Cooper

ACTIVE MARKETER BILL/CODES AND PGAS – FOR THE MONTH  
OF FEBRUARY, 2012 (UNIT ONE BILLING: 01/31/12)

MARKETER NAME	RATE(\$MCF)
1 ADT	\$8.99
2 ADT	\$6.99
3 ADT	\$6.86
4 ADT	\$6.50
5 ADT	\$9.02
6 ADT	\$7.44
7 ADT	\$7.65
8 ADT	\$8.49
9 ADT	\$7.69
10 ADT	\$7.35
11 RMO	\$7.99
12 RMO	\$8.99
13 RMO	\$8.24
14 RMO	\$7.48
15 RMO	\$8.99
16 RMO	\$6.99
17 RMO	\$9.49
18 RMO	\$7.24
19 RMO	\$6.97
20 RMO	\$7.19
21 RMO	\$5.87
22 RMO	\$8.49
23 RMO	\$7.90
24 RMO	\$5.62
25 RMO	\$7.49
26 RMO	\$8.50
27 RMO	\$6.74
28 RMO	\$7.90
29 RMO	\$7.74
30 RMO	\$7.89
31 RMO	\$6.49
32 RMO	\$5.47
33 RMO	\$6.99
34 RMO	\$5.45
35 RMO	\$5.55
36 RMO	\$5.65
37 RMO	\$5.75
38 RMO	\$5.85
39 RMO	\$5.95
40 KQ	\$7.48
41 KQ	\$6.99
42 KQ	\$6.90
43 KQ	\$6.80
44 KQ	\$6.70
45 QF	\$6.90



46 QF	\$6.37
47 QF	\$6.04
QF	\$5.97
VRT	\$9.85
50 VRT	\$9.79
51 VRT	\$7.59
52 VRT	\$6.99
53 VRT	\$8.19
54 VRT	\$6.79
55 VRT	\$8.49
56 VRT	\$13.50
57 VRT	\$8.99
58 VRT	\$6.43
59 VRT	\$8.09
60 VRT	\$7.49
61 VRT	\$5.90
62 VRT	\$5.39
63 VRT	\$12.69
64 VRT	\$6.49
65 VRT	\$7.79
66 VRT	\$5.85
67 VRT	\$6.99
68 VRT	\$7.09
69 VRT	\$5.99
70 VRT	\$14.65
71 VRT	\$7.10
72 VRT	\$6.12
VRT	\$6.95
VRT	\$5.29
75 VRT	\$6.59
76 VRT	\$7.99
77 VRT	\$5.56
78 DGY	\$5.70
79 DGY	\$4.53
80 TT	\$5.83
81 TT	\$5.93
82 TT	\$5.83
83 TT	\$6.02
84 TT	\$6.02
CKY GCA	\$5.4498

PSC Case No. 2013-00167  
 KY AG 1-35  
 Attachment A  
 Respondent: Judy M Cooper

Columbia Gas of Kentucky, Inc.  
Customer Choice Program  
Marketer Billing Rates

PSC Case No. 2013-00167  
KY AG 1-35  
Attachment A  
Respondent: Judy M Cooper

ACTIVE MARKETER BILL/CODES AND PGAS – FOR THE MONTH  
OF JANUARY, 2012 (UNIT ONE BILLING: 12/30/11)

MARKETER NAME	RATE(\$MCF)
1 ADT	\$8.99
2 ADT	\$7.49
3 ADT	\$6.86
4 ADT	\$6.50
5 ADT	\$9.02
6 ADT	\$7.44
7 ADT	\$7.65
8 ADT	\$8.49
9 ADT	\$7.69
10 ADT	\$7.35
11 RMO	\$7.99
12 RMO	\$8.99
13 RMO	\$8.24
14 RMO	\$7.48
15 RMO	\$8.99
16 RMO	\$6.99
17 RMO	\$9.49
18 RMO	\$7.24
19 RMO	\$6.97
20 RMO	\$7.49
21 RMO	\$6.15
22 RMO	\$8.49
23 RMO	\$7.90
24 RMO	\$5.90
25 RMO	\$7.49
26 RMO	\$8.50
27 RMO	\$6.74
28 RMO	\$7.90
29 RMO	\$7.74
30 RMO	\$7.89
31 RMO	\$6.49
32 RMO	\$5.75
33 RMO	\$5.35
34 RMO	\$5.45
35 RMO	\$5.55
36 RMO	\$5.65
37 RMO	\$5.75
38 RMO	\$5.85
39 RMO	\$5.95
40 KQ	\$7.48
41 QF	\$6.90
42 QF	\$6.37
43 QF	\$6.04
44 VRT	\$9.85
45 VRT	\$9.79

46 VRT	\$7.59
47 VRT	\$7.49
48 VRT	\$8.19
49 VRT	\$6.79
50 VRT	\$8.49
51 VRT	\$13.50
52 VRT	\$8.99
53 VRT	\$6.43
54 VRT	\$8.09
55 VRT	\$7.49
56 VRT	\$5.90
57 VRT	\$8.89
58 VRT	\$12.69
59 VRT	\$6.49
60 VRT	\$7.79
61 VRT	\$5.85
62 VRT	\$6.99
63 VRT	\$7.09
64 VRT	\$5.99
65 VRT	\$14.65
66 VRT	\$7.10
67 VRT	\$6.12
68 VRT	\$6.95
69 VRT	\$5.29
70 VRT	\$6.59
71 VRT	\$7.99
72 VRT	\$5.56
73 DGY	\$5.70
74 DGY	\$5.22
75 TT	\$5.21
76 TT	\$5.31
77 TT	\$5.21
78 TT	\$6.02
79 TT	\$6.02
CKY GCA	\$5.4498

PSC Case No. 2013-00167  
 KY AG 1-35  
 Attachment A  
 Respondent: Judy M Cooper

Columbia Gas of Kentucky, Inc.  
Customer Choice Program  
Marketer Billing Rates

PSC Case No. 2013-00167  
KY AG 1-35  
Attachment A  
Respondent: Judy M Cooper

ACTIVE MARKETER BILL/CODES AND PGAS -- FOR THE MONTH  
OF DECEMBER, 2011 (UNIT ONE BILLING: 11/29/11)

MARKETER NAME	RATE(\$MCF)
1 ADT	\$9.49
2 ADT	\$7.49
3 ADT	\$6.86
4 ADT	\$6.50
5 ADT	\$9.02
6 ADT	\$7.44
7 ADT	\$7.65
8 ADT	\$8.49
9 ADT	\$7.69
10 ADT	\$7.35
11 RMO	\$7.99
12 RMO	\$8.99
13 RMO	\$8.24
14 RMO	\$7.48
15 RMO	\$8.99
16 RMO	\$6.99
17 RMO	\$9.49
18 RMO	\$7.24
19 RMO	\$6.97
20 RMO	\$7.74
21 RMO	\$6.31
22 RMO	\$8.49
23 RMO	\$7.90
24 RMO	\$6.06
25 RMO	\$7.49
26 RMO	\$8.50
27 RMO	\$6.74
28 RMO	\$7.90
29 RMO	\$7.74
30 RMO	\$7.89
31 RMO	\$6.49
32 RMO	\$5.91
33 RMO	\$5.35
34 RMO	\$5.45
35 RMO	\$5.55
36 RMO	\$5.65
37 RMO	\$5.75
38 RMO	\$5.85
39 RMO	\$5.95
40 KQ	\$7.48
41 QF	\$6.90
42 QF	\$6.37
43 QF	\$6.04
44 VRT	\$9.85
45 VRT	\$9.79

46 VRT	\$7.59
47 VRT	\$7.49
48 VRT	\$8.19
49 VRT	\$6.79
50 VRT	\$8.49
51 VRT	\$13.50
52 VRT	\$8.99
53 VRT	\$6.43
54 VRT	\$8.09
55 VRT	\$7.49
56 VRT	\$15.84
57 VRT	\$8.89
58 VRT	\$12.69
59 VRT	\$6.49
60 VRT	\$7.79
61 VRT	\$8.89
62 VRT	\$6.99
63 VRT	\$7.09
64 VRT	\$5.99
65 VRT	\$14.65
66 VRT	\$7.10
67 VRT	\$6.12
68 VRT	\$6.95
69 VRT	\$10.58
70 VRT	\$6.59
71 VRT	\$7.99
72 VRT	\$5.56
73 DGY	\$5.44
74 DGY	\$5.44
75 TT	\$6.37
76 TT	\$6.47
77 TT	\$6.37
78 TT	\$6.02
79 TT	\$6.02
CKY GCA	\$5.4498

PSC Case No. 2013-00167  
 KY AG 1-35  
 Attachment A  
 Respondent: Judy M Cooper

Columbia Gas of Kentucky, Inc.  
Customer Choice Program  
Marketer Billing Rates

PSC Case No. 2013-00167  
KY AG 1-35  
Attachment A  
Respondent: Judy M Cooper

ACTIVE MARKETER BILL/CODES AND PGAS – FOR THE MONTH  
OF NOVEMBER, 2011 (UNIT ONE BILLING: 10/27/11)

MARKETER NAME	RATE(\$MCF)
1 ADT	\$9.49
2 ADT	\$7.49
3 ADT	\$6.86
4 ADT	\$6.50
5 ADT	\$9.02
6 ADT	\$7.44
7 ADT	\$7.65
8 ADT	\$8.49
9 ADT	\$7.69
10 ADT	\$7.35
11 RMO	\$7.99
12 RMO	\$8.99
13 RMO	\$8.24
14 RMO	\$7.48
15 RMO	\$8.99
16 RMO	\$6.99
17 RMO	\$9.49
18 RMO	\$7.24
19 RMO	\$6.97
20 RMO	\$7.74
21 RMO	\$6.55
22 RMO	\$8.49
23 RMO	\$7.90
24 RMO	\$6.30
25 RMO	\$7.49
26 RMO	\$8.50
27 RMO	\$6.74
28 RMO	\$7.90
29 RMO	\$7.74
30 RMO	\$7.89
31 RMO	\$6.49
32 RMO	\$6.15
33 RMO	\$5.35
34 RMO	\$5.45
35 RMO	\$5.55
36 RMO	\$5.65
37 RMO	\$5.75
38 RMO	\$5.85
39 RMO	\$5.95
40 KQ	\$7.48
41 VRT	\$9.85
42 VRT	\$9.79
43 VRT	\$7.59
44 VRT	\$7.59
45 VRT	\$8.19

46 VRT	\$6.79
47 VRT	\$8.49
48 VRT	\$13.50
49 VRT	\$8.99
50 VRT	\$6.43
51 VRT	\$8.09
52 VRT	\$7.49
53 VRT	\$15.84
54 VRT	\$8.89
55 VRT	\$12.69
56 VRT	\$6.49
57 VRT	\$7.79
58 VRT	\$8.89
59 VRT	\$6.99
60 VRT	\$7.09
61 VRT	\$5.99
62 VRT	\$14.65
63 VRT	\$7.10
64 VRT	\$6.12
65 VRT	\$6.95
66 VRT	\$10.58
67 VRT	\$6.59
68 VRT	\$7.99
69 VRT	\$5.56
70 DGY	\$5.86
71 DGY	\$5.86
72 TT	\$6.71
73 TT	\$6.81
74 TT	\$6.71
75 TT	\$6.02
76 TT	\$6.02
CKY GCA	\$5.6418

PSC Case No. 2013-00167  
 KY AG 1-35  
 Attachment A  
 Respondent: Judy M Cooper

Columbia Gas of Kentucky, Inc.  
Customer Choice Program  
Marketer Billing Rates

PSC Case No. 2013-00167  
KY AG 1-35  
Attachment A  
Respondent: Judy M Cooper

ACTIVE MARKETER BILL/CODES AND PGAS – FOR THE MONTH  
OF OCTOBER, 2011 (UNIT ONE BILLING: 09/28/11)

MARKETER NAME	RATE(\$MCF)
1 ADT	\$9.49
2 ADT	\$7.99
3 ADT	\$6.86
4 ADT	\$6.50
5 ADT	\$9.02
6 ADT	\$7.44
7 ADT	\$7.65
8 ADT	\$8.49
9 ADT	\$7.69
10 ADT	\$7.35
11 RMO	\$7.99
12 RMO	\$8.99
13 RMO	\$8.24
14 RMO	\$7.48
15 RMO	\$8.99
16 RMO	\$6.99
17 RMO	\$9.49
18 RMO	\$7.24
19 RMO	\$6.97
20 RMO	\$7.74
21 RMO	\$6.65
22 RMO	\$8.49
23 RMO	\$7.90
24 RMO	\$6.40
25 RMO	\$7.49
26 RMO	\$8.50
27 RMO	\$6.74
28 RMO	\$7.90
29 RMO	\$7.74
30 RMO	\$7.89
31 RMO	\$5.15
32 RMO	\$5.25
33 RMO	\$5.35
34 RMO	\$5.45
35 RMO	\$5.55
36 RMO	\$5.65
37 RMO	\$5.75
38 RMO	\$5.85
39 RMO	\$5.95
40 KQ	\$7.48
41 VRT	\$9.85
42 VRT	\$9.79
43 VRT	\$7.59
44 VRT	\$7.99
45 VRT	\$8.19



46 VRT	\$14.79
47 VRT	\$8.49
48 VRT	\$13.50
49 VRT	\$8.99
50 VRT	\$6.43
51 VRT	\$8.09
52 VRT	\$7.49
53 VRT	\$15.84
54 VRT	\$8.89
55 VRT	\$12.69
56 VRT	\$6.49
57 VRT	\$7.79
58 VRT	\$8.89
59 VRT	\$6.99
60 VRT	\$7.09
61 VRT	\$5.99
62 VRT	\$14.65
63 VRT	\$7.10
64 VRT	\$17.17
65 VRT	\$6.95
66 VRT	\$10.58
67 VRT	\$6.59
68 VRT	\$7.99
69 VRT	\$5.56
70 DGY	\$6.24
71 DGY	\$6.24
72 TT	\$6.71
73 TT	\$6.81
74 TT	\$6.70
75 TT	\$6.02
76 TT	\$6.02
CKY GCA	\$5.6418

PSC Case No. 2013-00167  
 KY AG 1-35  
 Attachment A  
 Respondent: Judy M Cooper

Columbia Gas of Kentucky, Inc.  
Customer Choice Program  
Marketer Billing Rates

PSC Case No. 2013-00167  
KY AG 1-35  
Attachment A  
Respondent: Judy M Cooper

ACTIVE MARKETER BILL/CODES AND PGAS -- FOR THE MONTH  
OF SEPTEMBER, 2011 (UNIT ONE BILLING: 08/29/2011)

MARKETER NAME	RATE(\$MCF)
1 ADT	\$8.60
2 ADT	\$8.35
3 ADT	\$6.86
4 ADT	\$6.50
5 ADT	\$8.17
6 ADT	\$7.44
7 ADT	\$7.65
8 ADT	\$7.32
9 ADT	\$7.69
10 ADT	\$7.66
11 RMO	\$7.99
12 RMO	\$8.99
13 RMO	\$8.24
14 RMO	\$8.49
15 RMO	\$8.99
16 RMO	\$6.99
17 RMO	\$9.49
18 RMO	\$7.24
19 RMO	\$6.97
20 RMO	\$7.74
21 RMO	\$7.16
22 RMO	\$8.49
23 RMO	\$7.90
24 RMO	\$6.91
25 RMO	\$7.49
26 RMO	\$8.50
27 RMO	\$6.74
28 RMO	\$7.90
29 RMO	\$7.74
30 RMO	\$7.89
31 RMO	\$5.15
32 RMO	\$5.25
33 RMO	\$5.35
34 RMO	\$5.45
35 RMO	\$5.55
36 RMO	\$5.65
37 RMO	\$5.75
38 RMO	\$5.85
39 RMO	\$5.95
40 VRT	\$9.85
41 VRT	\$9.79
42 VRT	\$7.59
43 VRT	\$7.99
44 VRT	\$8.19
45 VRT	\$14.79

46 VRT	\$8.49
47 VRT	\$13.50
48 VRT	\$8.99
49 VRT	\$9.92
50 VRT	\$8.09
51 VRT	\$7.49
52 VRT	\$15.84
53 VRT	\$8.89
54 VRT	\$12.69
55 VRT	\$6.49
56 VRT	\$7.79
57 VRT	\$8.89
58 VRT	\$6.99
59 VRT	\$7.09
60 VRT	\$5.99
61 VRT	\$14.65
62 VRT	\$7.10
63 VRT	\$17.17
64 VRT	\$6.95
65 VRT	\$10.58
66 VRT	\$6.59
67 VRT	\$7.99
68 VRT	\$5.56
69 DGY	\$6.80
70 DGY	\$6.80
71 TT	\$6.22
72 TT	\$6.32
73 TT	\$6.22
74 TT	\$6.02
75 TT	\$6.02
CKY GCA	\$5.6418

PSC Case No. 2013-00167  
 KY AG 1-35  
 Attachment A  
 Respondent: Judy M Cooper

Columbia Gas of Kentucky, Inc.  
Customer Choice Program  
Marketer Billing Rates

PSC Case No. 2013-00167  
KY AG 1-35  
Attachment A  
Respondent: Judy M Cooper

ACTIVE MARKETER BILL/CODES AND PGAS – FOR THE MONTH  
OF AUGUST, 2011 (UNIT ONE BILLING: 07/29/11)

MARKETER NAME	RATE(\$MCF)
1 ADT	\$8.60
2 ADT	\$8.35
3 ADT	\$6.86
4 ADT	\$6.50
5 ADT	\$8.17
6 ADT	\$7.44
7 ADT	\$7.65
8 ADT	\$7.32
9 ADT	\$7.69
10 ADT	\$7.66
11 RMO	\$7.99
12 RMO	\$8.99
13 RMO	\$8.24
14 RMO	\$8.49
15 RMO	\$8.99
16 RMO	\$6.99
17 RMO	\$9.49
18 RMO	\$7.24
19 RMO	\$6.97
20 RMO	\$7.86
21 RMO	\$7.15
22 RMO	\$8.49
23 RMO	\$7.90
24 RMO	\$6.90
25 RMO	\$7.49
26 RMO	\$8.50
27 RMO	\$6.74
28 RMO	\$7.90
29 RMO	\$7.74
30 RMO	\$7.89
31 RMO	\$5.15
32 RMO	\$5.25
33 RMO	\$5.35
34 RMO	\$5.45
35 RMO	\$5.55
36 RMO	\$5.65
37 RMO	\$5.75
38 RMO	\$5.85
39 RMO	\$5.95
40 VRT	\$9.85
41 VRT	\$9.79
42 VRT	\$10.29
43 VRT	\$7.99
44 VRT	\$8.19
45 VRT	\$14.79

46 VRT	\$8.49
47 VRT	\$13.50
48 VRT	\$8.99
49 VRT	\$9.92
50 VRT	\$8.09
51 VRT	\$7.49
52 VRT	\$15.84
53 VRT	\$8.89
54 VRT	\$12.69
55 VRT	\$6.49
56 VRT	\$7.79
57 VRT	\$8.89
58 VRT	\$6.99
59 VRT	\$7.09
60 VRT	\$5.99
61 VRT	\$14.65
62 VRT	\$7.10
63 VRT	\$17.17
64 VRT	\$6.95
65 VRT	\$10.58
66 VRT	\$6.59
67 VRT	\$7.99
68 VRT	\$5.56
69 DGY	\$7.36
70 DGY	\$7.36
71 TT	\$6.21
72 TT	\$6.31
73 TT	\$6.21
74 TT	\$6.02
75 TT	\$6.02
CKY GCA	\$5.4551

PSC Case No. 2013-00167  
 KY AG 1-35  
 Attachment A  
 Respondent: Judy M Cooper

Columbia Gas of Kentucky, Inc.  
Customer Choice Program  
Marketer Billing Rates

PSC Case No. 2013-00167  
KY AG 1-35  
Attachment A  
Respondent: Judy M Cooper

ACTIVE MARKETER BILL/CODES AND PGAS – FOR THE MONTH OF  
JULY, 2011 (UNIT ONE BILLING: 06/29/11)

MARKETER NAME	RATE(\$MCF)
1 ADT	\$8.60
2 ADT	\$8.35
3 ADT	\$6.86
4 ADT	\$6.50
5 ADT	\$8.17
6 ADT	\$7.44
7 ADT	\$7.65
8 ADT	\$7.32
9 ADT	\$7.69
10 ADT	\$7.66
11 RMO	\$7.99
12 RMO	\$8.99
13 RMO	\$8.24
14 RMO	\$8.49
15 RMO	\$8.99
16 RMO	\$6.99
17 RMO	\$9.49
18 RMO	\$7.24
19 RMO	\$6.97
20 RMO	\$7.83
21 RMO	\$7.12
22 RMO	\$8.49
23 RMO	\$7.90
24 RMO	\$6.87
25 RMO	\$7.49
26 RMO	\$8.50
27 RMO	\$6.74
28 RMO	\$7.90
29 RMO	\$7.74
30 RMO	\$7.89
31 RMO	\$5.15
32 RMO	\$5.25
33 RMO	\$5.35
34 RMO	\$5.45
35 RMO	\$5.55
36 RMO	\$5.65
37 RMO	\$5.75
38 RMO	\$5.85
39 RMO	\$5.95
40 VRT	\$9.85
41 VRT	\$9.79
42 VRT	\$10.29
43 VRT	\$7.99
44 VRT	\$8.19
45 VRT	\$14.79

46 VRT	\$8.49
47 VRT	\$13.50
48 VRT	\$8.99
49 VRT	\$9.92
50 VRT	\$8.09
51 VRT	\$9.39
52 VRT	\$15.84
53 VRT	\$8.89
54 VRT	\$12.69
55 VRT	\$6.49
56 VRT	\$7.79
57 VRT	\$8.89
58 VRT	\$6.99
59 VRT	\$7.09
60 VRT	\$5.99
61 VRT	\$14.65
62 VRT	\$7.10
63 VRT	\$17.17
64 VRT	\$6.95
65 VRT	\$10.58
66 VRT	\$6.59
67 VRT	\$7.99
68 VRT	\$5.56
69 DGY	\$5.99
70 DGY	\$5.99
71 TT	\$6.18
72 TT	\$6.28
73 TT	\$6.18
74 TT	\$6.02
75 TT	\$6.02
CKY GCA	\$5.4551

PSC Case No. 2013-00167  
KY AG 1-35  
Attachment A  
Respondent: Judy M Cooper

Columbia Gas of Kentucky, Inc.  
Customer Choice Program  
Marketer Billing Rates

PSC Case No. 2013-00167  
KY AG 1-35  
Attachment A  
Respondent: Judy M Cooper

ACTIVE MARKETER BILL/CODES AND PGAS -- FOR THE MONTH  
OF JUNE, 2011 (UNIT ONE BILLING: 05/31/11)

MARKETER NAME	RATE(\$MCF)
1 ADT	\$7.76
2 ADT	\$8.35
3 ADT	\$6.86
4 ADT	\$6.50
5 ADT	\$7.37
6 ADT	\$7.44
7 ADT	\$7.65
8 ADT	\$7.32
9 ADT	\$7.94
10 ADT	\$7.66
11 RMO	\$7.99
12 RMO	\$8.99
13 RMO	\$8.24
14 RMO	\$8.49
15 RMO	\$8.99
16 RMO	\$6.99
17 RMO	\$9.49
18 RMO	\$7.24
19 RMO	\$6.97
20 RMO	\$7.20
21 RMO	\$7.56
22 RMO	\$8.49
23 RMO	\$7.90
24 RMO	\$6.92
25 RMO	\$7.49
26 RMO	\$8.50
27 RMO	\$6.74
28 RMO	\$7.90
29 RMO	\$7.74
30 RMO	\$5.05
31 RMO	\$5.15
32 RMO	\$5.25
33 RMO	\$5.35
34 RMO	\$5.45
35 RMO	\$5.55
36 RMO	\$5.65
37 RMO	\$5.75
38 RMO	\$5.85
39 RMO	\$5.95
40 VRT	\$9.85
41 VRT	\$9.79
42 VRT	\$10.29
43 VRT	\$7.99
44 VRT	\$8.19
45 VRT	\$14.79



46 VRT	\$8.49
47 VRT	\$13.50
48 VRT	\$8.99
49 VRT	\$9.92
50 VRT	\$8.09
51 VRT	\$9.39
52 VRT	\$15.84
53 VRT	\$8.89
54 VRT	\$12.69
55 VRT	\$6.49
56 VRT	\$7.79
57 VRT	\$8.89
58 VRT	\$6.99
59 VRT	\$7.09
60 VRT	\$5.99
61 VRT	\$14.65
62 VRT	\$7.10
63 VRT	\$17.17
64 VRT	\$6.95
65 VRT	\$10.58
66 VRT	\$6.59
67 VRT	\$7.99
68 VRT	\$5.56
69 DGY	\$5.83
70 DGY	\$5.83
71 TT	\$6.23
72 TT	\$6.33
73 TT	\$6.23
74 TT	\$6.02
75 TT	\$6.02
CKY GCA	\$5.4551

PSC Case No. 2013-00167  
 KY AG 1-35  
 Attachment A  
 Respondent: Judy M Cooper

Columbia Gas of Kentucky, Inc.  
Customer Choice Program  
Marketer Billing Rates

PSC Case No. 2013-00167  
KY AG 1-35  
Attachment A  
Respondent: Judy M Cooper

ACTIVE MARKETER BILL/CODES AND PGAS -- FOR THE MONTH  
OF MAY, 2011 (UNIT ONE BILLING: 04/29/11)

MARKETER NAME	RATE(\$MCF)
1 ADT	\$7.55
2 ADT	\$8.35
3 ADT	\$6.86
4 ADT	\$6.50
5 ADT	\$7.17
6 ADT	\$7.44
7 ADT	\$7.65
8 ADT	\$7.32
9 ADT	\$7.25
10 ADT	\$6.75
11 RMO	\$7.99
12 RMO	\$8.99
13 RMO	\$8.24
14 RMO	\$8.49
15 RMO	\$8.99
16 RMO	\$6.99
17 RMO	\$9.49
18 RMO	\$7.24
19 RMO	\$6.97
20 RMO	\$7.20
21 RMO	\$7.56
22 RMO	\$8.49
23 RMO	\$7.90
24 RMO	\$6.78
25 RMO	\$7.49
26 RMO	\$8.50
27 RMO	\$6.74
28 RMO	\$7.90
29 RMO	\$7.74
30 RMO	\$5.05
31 RMO	\$5.15
32 RMO	\$5.25
33 RMO	\$5.35
34 RMO	\$5.45
35 RMO	\$5.55
36 RMO	\$5.65
37 RMO	\$5.75
38 RMO	\$5.85
39 RMO	\$5.95
40 VRT	\$9.85
41 VRT	\$9.79
42 VRT	\$10.29
43 VRT	\$7.99
44 VRT	\$8.19
45 VRT	\$14.79

46 VRT	\$8.49
47 VRT	\$13.50
48 VRT	\$8.99
49 VRT	\$9.92
50 VRT	\$8.09
51 VRT	\$9.39
52 VRT	\$15.84
53 VRT	\$8.89
54 VRT	\$12.69
55 VRT	\$6.49
56 VRT	\$7.79
57 VRT	\$8.89
58 VRT	\$6.99
59 VRT	\$7.09
60 VRT	\$5.99
61 VRT	\$14.65
62 VRT	\$7.10
63 VRT	\$17.17
64 VRT	\$6.95
65 VRT	\$10.58
66 VRT	\$6.59
67 VRT	\$7.99
68 VRT	\$5.56
69 DGY	\$6.16
70 DGY	\$6.16
71 TT	\$6.09
72 TT	\$6.19
73 TT	\$6.09
74 TT	\$6.02
75 TT	\$6.02
CKY GCA	\$5.8813

PSC Case No. 2013-00167  
 KY AG 1-35  
 Attachment A  
 Respondent: Judy M Cooper

Columbia Gas of Kentucky, Inc.  
Customer Choice Program  
Marketer Billing Rates

PSC Case No. 2013-00167  
KY AG 1-35  
Attachment A  
Respondent: Judy M Cooper

ACTIVE MARKETER BILL/CODES AND PGAS -- FOR THE MONTH  
OF APRIL, 2011 (UNIT ONE BILLING: 03/30/11)

MARKETER NAME	RATE(\$MCF)
1 ADT	\$6.99
2 ADT	\$8.35
3 ADT	\$6.86
4 ADT	\$6.50
5 ADT	\$6.64
6 ADT	\$7.44
7 ADT	\$7.75
8 ADT	\$7.00
9 ADT	\$7.25
10 ADT	\$6.75
11 RMO	\$7.99
12 RMO	\$8.99
13 RMO	\$8.24
14 RMO	\$8.49
15 RMO	\$8.99
16 RMO	\$6.99
17 RMO	\$9.49
18 RMO	\$7.24
19 RMO	\$6.97
20 RMO	\$6.50
21 RMO	\$7.56
22 RMO	\$8.49
23 RMO	\$7.90
24 RMO	\$6.33
25 RMO	\$7.49
26 RMO	\$8.50
27 RMO	\$6.74
28 RMO	\$7.90
29 RMO	\$7.74
30 RMO	\$5.05
31 RMO	\$5.15
32 RMO	\$5.25
33 RMO	\$5.35
34 RMO	\$5.45
35 RMO	\$5.55
36 RMO	\$5.65
37 RMO	\$5.75
38 RMO	\$5.85
39 RMO	\$5.95
40 VRT	\$9.85
41 VRT	\$9.79
42 VRT	\$10.29
43 VRT	\$7.20
44 VRT	\$8.19
45 VRT	\$14.79

46 VRT	\$8.49
47 VRT	\$13.50
48 VRT	\$8.99
49 VRT	\$9.92
50 VRT	\$8.09
51 VRT	\$9.39
52 VRT	\$15.84
53 VRT	\$8.89
54 VRT	\$12.69
55 VRT	\$6.49
56 VRT	\$7.79
57 VRT	\$8.89
58 VRT	\$6.99
59 VRT	\$7.09
60 VRT	\$5.99
61 VRT	\$14.65
62 VRT	\$7.10
63 VRT	\$17.17
64 VRT	\$6.95
65 VRT	\$10.58
66 VRT	\$6.59
67 VRT	\$7.99
68 VRT	\$5.56
69 DGY	\$6.41
70 DGY	\$6.41
71 TT	\$5.69
72 TT	\$5.79
73 TT	\$5.69
74 TT	\$6.02
75 TT	\$6.02
CKY GCA	\$5.8813

PSC Case No. 2013-00167  
 KY AG 1-35  
 Attachment A  
 Respondent: Judy M Cooper

Columbia Gas of Kentucky, Inc.  
Customer Choice Program  
Marketer Billing Rates

PSC Case No. 2013-00167  
KY AG 1-35  
Attachment A  
Respondent: Judy M Cooper

ACTIVE MARKETER BILL/CODES AND PGAS -- FOR THE MONTH  
OF MARCH, 2011 (UNIT ONE BILLING: 03/01/11)

MARKETER NAME	RATE(\$MCF)
1 ADT	\$6.99
2 ADT	\$8.35
3 ADT	\$6.86
4 ADT	\$6.50
5 ADT	\$6.64
6 RMO	\$7.99
7 RMO	\$8.99
8 RMO	\$8.24
9 RMO	\$8.49
10 RMO	\$8.99
11 RMO	\$6.99
12 RMO	\$9.49
13 RMO	\$7.24
14 RMO	\$6.97
15 RMO	\$7.81
16 RMO	\$7.56
17 RMO	\$8.49
18 RMO	\$7.90
19 RMO	\$6.86
20 RMO	\$7.49
21 RMO	\$8.50
22 RMO	\$6.74
23 RMO	\$7.90
24 RMO	\$7.74
25 RMO	\$5.05
26 RMO	\$5.15
27 RMO	\$5.25
28 RMO	\$5.35
29 RMO	\$5.45
30 RMO	\$5.55
31 RMO	\$5.65
32 RMO	\$5.75
33 RMO	\$5.85
34 RMO	\$5.95
35 VRT	\$9.85
36 VRT	\$9.79
37 VRT	\$10.29
38 VRT	\$8.59
39 VRT	\$8.19
40 VRT	\$14.79
41 VRT	\$8.49
42 VRT	\$13.50
43 VRT	\$8.99
44 VRT	\$9.92
45 VRT	\$8.09

46 VRT	\$9.39
47 VRT	\$15.84
48 VRT	\$8.89
49 VRT	\$12.69
50 VRT	\$10.90
51 VRT	\$7.79
52 VRT	\$8.89
53 VRT	\$13.27
54 VRT	\$12.20
55 VRT	\$13.79
56 VRT	\$14.65
57 VRT	\$7.10
58 VRT	\$17.17
59 VRT	\$6.95
60 VRT	\$10.58
61 VRT	\$6.59
62 VRT	\$7.99
63 VRT	\$5.56
64 DGY	\$6.41
65 DGY	\$6.41
66 TT	\$6.17
67 TT	\$6.27
68 TT	\$6.17
69 TT	\$6.02
70 TT	\$6.02
CKY GCA	\$5.8813

PSC Case No. 2013-00167  
 KY AG 1-35  
 Attachment A  
 Respondent: Judy M Cooper

Columbia Gas of Kentucky, Inc.  
Customer Choice Program  
Marketer Billing Rates

PSC Case No. 2013-00167  
KY AG 1-35  
Attachment A  
Respondent: Judy M Cooper

ACTIVE MARKETER BILL/CODES AND PGAS -- FOR THE MONTH  
OF FEBRUARY, 2011 (UNIT ONE BILLING: 01/31/11)

MARKETER NAME	RATE(\$MCF)
1 ADT	\$6.99
2 ADT	\$6.76
3 ADT	\$8.73
4 ADT	\$6.50
5 ADT	\$6.64
6 RMO	\$7.99
7 RMO	\$8.99
8 RMO	\$8.24
9 RMO	\$8.49
10 RMO	\$8.99
11 RMO	\$6.99
12 RMO	\$9.49
13 RMO	\$7.24
14 RMO	\$6.97
15 RMO	\$7.90
16 RMO	\$7.56
17 RMO	\$8.49
18 RMO	\$7.90
19 RMO	\$6.76
20 RMO	\$7.49
21 RMO	\$8.50
22 RMO	\$6.74
23 RMO	\$7.90
24 RMO	\$7.74
25 RMO	\$5.05
26 RMO	\$5.15
27 RMO	\$5.25
28 RMO	\$5.35
29 RMO	\$5.45
30 RMO	\$5.55
31 RMO	\$5.65
32 RMO	\$5.75
33 RMO	\$5.85
34 RMO	\$5.95
35 VRT	\$9.85
36 VRT	\$9.79
37 VRT	\$10.29
38 VRT	\$8.59
39 VRT	\$8.19
40 VRT	\$14.79
41 VRT	\$8.49
42 VRT	\$13.50
43 VRT	\$8.99
44 VRT	\$9.92
45 VRT	\$8.09



46 VRT	\$9.39
47 VRT	\$15.84
48 VRT	\$8.89
49 VRT	\$12.69
50 VRT	\$10.90
51 VRT	\$7.79
52 VRT	\$8.89
53 VRT	\$13.27
54 VRT	\$12.20
55 VRT	\$13.79
56 VRT	\$14.65
57 VRT	\$7.10
58 VRT	\$17.17
59 VRT	\$6.95
60 VRT	\$10.58
61 VRT	\$6.59
62 VRT	\$7.99
63 VRT	\$5.56
64 DGY	\$7.12
65 DGY	\$7.12
66 TT	\$6.07
67 TT	\$6.17
68 TT	\$5.95
69 TT	\$6.02
70 TT	\$6.02
CKY GCA	\$6.9981

PSC Case No. 2013-00167  
 KY AG 1-35  
 Attachment A  
 Respondent: Judy M Cooper

Columbia Gas of Kentucky, Inc.  
Customer Choice Program  
Marketer Billing Rates

PSC Case No. 2013-00167  
KY AG 1-35  
Attachment A  
Respondent: Judy M Cooper

ACTIVE MARKETER BILL/CODES AND PGAS -- FOR THE MONTH  
OF JANUARY, 2011 (UNIT ONE BILLING: 12/30/10)

MARKETER NAME	RATE(\$MCF)
1 ADT	\$6.99
2 ADT	\$6.76
3 ADT	\$8.73
4 ADT	\$9.31
5 ADT	\$6.64
6 RMO	\$7.99
7 RMO	\$8.99
8 RMO	\$8.24
9 RMO	\$8.49
10 RMO	\$8.99
11 RMO	\$6.99
12 RMO	\$9.49
13 RMO	\$7.24
14 RMO	\$6.97
15 RMO	\$7.76
16 RMO	\$7.56
17 RMO	\$8.49
18 RMO	\$7.90
19 RMO	\$6.81
20 RMO	\$7.49
21 RMO	\$8.50
22 RMO	\$6.74
23 RMO	\$7.90
24 RMO	\$7.74
25 RMO	\$5.05
26 RMO	\$5.15
27 RMO	\$5.25
28 RMO	\$5.35
29 RMO	\$5.45
30 RMO	\$5.55
31 RMO	\$5.65
32 RMO	\$5.75
33 RMO	\$5.85
34 RMO	\$5.95
35 VRT	\$9.85
36 VRT	\$9.79
37 VRT	\$10.29
38 VRT	\$8.59
39 VRT	\$8.19
40 VRT	\$14.79
41 VRT	\$8.49
42 VRT	\$13.50
43 VRT	\$8.99
44 VRT	\$9.92
45 VRT	\$8.09

46 VRT	\$9.39
47 VRT	\$15.84
48 VRT	\$8.89
49 VRT	\$12.69
50 VRT	\$10.90
51 VRT	\$7.79
52 VRT	\$8.89
53 VRT	\$13.27
54 VRT	\$12.20
55 VRT	\$13.79
56 VRT	\$14.65
57 VRT	\$7.10
58 VRT	\$17.17
59 VRT	\$6.95
60 VRT	\$10.58
61 VRT	\$12.90
62 VRT	\$7.99
63 VRT	\$5.56
64 DGY	\$6.65
65 DGY	\$6.65
66 TT	\$6.49
67 TT	\$6.59
68 TT	\$6.49
69 TT	\$6.02
70 TT	\$6.02
CKY GCA	\$6.9981

PSC Case No. 2013-00167  
 KY AG 1-35  
 Attachment A  
 Respondent: Judy M Cooper

Columbia Gas of Kentucky, Inc.  
Customer Choice Program  
Marketer Billing Rates

PSC Case No. 2013-00167  
KY AG 1-35  
Attachment A  
Respondent: Judy M Cooper

ACTIVE MARKETER BILL/CODES AND PGAS -- FOR THE MONTH  
OF DECEMBER, 2010 (UNIT ONE BILLING: 11/29/10)

MARKETER NAME	RATE(\$MCF)
1 ADT	\$7.26
2 ADT	\$7.03
3 ADT	\$8.73
4 ADT	\$9.31
5 ADT	\$6.90
6 RMO	\$7.99
7 RMO	\$8.99
8 RMO	\$8.24
9 RMO	\$8.49
10 RMO	\$8.99
11 RMO	\$6.99
12 RMO	\$9.49
13 RMO	\$7.24
14 RMO	\$6.97
15 RMO	\$7.73
16 RMO	\$7.56
17 RMO	\$8.49
18 RMO	\$7.90
19 RMO	\$5.83
20 RMO	\$7.49
21 RMO	\$8.50
22 RMO	\$6.74
23 RMO	\$7.90
24 RMO	\$7.74
25 VRT	\$9.85
26 VRT	\$9.79
27 VRT	\$10.29
28 VRT	\$7.99
29 VRT	\$8.19
30 VRT	\$14.79
31 VRT	\$8.49
32 VRT	\$13.50
33 VRT	\$8.99
34 VRT	\$9.92
35 VRT	\$8.09
36 VRT	\$9.39
37 VRT	\$15.84
38 VRT	\$8.89
39 VRT	\$12.69
40 VRT	\$10.90
41 VRT	\$7.79
42 VRT	\$8.89
43 VRT	\$13.27
44 VRT	\$12.20
45 VRT	\$13.79

46 VRT	\$14.65
47 VRT	\$7.10
48 VRT	\$17.17
49 VRT	\$6.95
50 VRT	\$10.58
51 VRT	\$12.90
52 VRT	\$7.99
53 VRT	\$5.56
54 DGY	\$6.35
55 DGY	\$6.35
56 TT	\$5.14
57 TT	\$5.24
58 TT	\$5.14
59 TT	\$6.02
60 TT	\$6.02
CKY GCA	\$6.9981

PSC Case No. 2013-00167  
KY AG 1-35  
Attachment A  
Respondent: Judy M Cooper

Columbia Gas of Kentucky, Inc.  
Customer Choice Program  
Marketer Billing Rates

PSC Case No. 2013-00167  
KY AG 1-35  
Attachment A  
Respondent: Judy M Cooper

ACTIVE MARKETER BILL/CODES AND PGAS -- FOR THE MONTH  
OF NOVEMBER, 2010 (UNIT ONE BILLING: 10/27/10)

MARKETER NAME	RATE(\$MCF)
1 ADT	\$6.62
2 ADT	\$6.39
3 ADT	\$8.73
4 ADT	\$9.31
5 ADT	\$6.29
6 RMO	\$7.99
7 RMO	\$8.99
8 RMO	\$8.24
9 RMO	\$8.49
10 RMO	\$8.99
11 RMO	\$7.90
12 RMO	\$9.49
13 RMO	\$7.24
14 RMO	\$13.79
15 RMO	\$7.73
16 RMO	\$7.56
17 RMO	\$8.49
18 RMO	\$7.90
19 RMO	\$6.38
20 RMO	\$7.49
21 RMO	\$8.50
22 RMO	\$9.99
23 RMO	\$7.90
24 RMO	\$7.74
25 VRT	\$9.85
26 VRT	\$9.79
27 VRT	\$10.29
28 VRT	\$7.99
29 VRT	\$8.19
30 VRT	\$14.79
31 VRT	\$8.49
32 VRT	\$13.50
33 VRT	\$8.99
34 VRT	\$9.92
35 VRT	\$8.09
36 VRT	\$9.39
37 VRT	\$15.84
38 VRT	\$8.89
39 VRT	\$12.69
40 VRT	\$10.90
41 VRT	\$7.79
42 VRT	\$8.89
43 VRT	\$13.27
44 VRT	\$12.20
45 VRT	\$13.79

46 VRT	\$14.65
47 VRT	\$7.10
48 VRT	\$17.17
49 VRT	\$6.95
50 VRT	\$10.58
51 VRT	\$12.90
52 VRT	\$7.99
53 VRT	\$11.72
54 DGY	\$5.09
55 DGY	\$5.09
56 TT	\$5.69
57 TT	\$5.79
58 TT	\$5.69
59 TT	\$6.02
60 TT	\$6.02
CKY GCA	\$6.9554

PSC Case No. 2013-00167  
KY AG 1-35  
Attachment A  
Respondent: Judy M Cooper

Columbia Gas of Kentucky, Inc.  
Customer Choice Program  
Marketer Billing Rates

PSC Case No. 2013-00167  
KY AG 1-35  
Attachment A  
Respondent: Judy M Cooper

ACTIVE MARKETER BILL/CODES AND PGAS -- FOR THE MONTH  
OF OCTOBER, 2010 (UNIT ONE BILLING: 09/28/10)

MARKETER NAME	RATE(\$MCF)
1 ADT	\$6.99
2 ADT	\$6.76
3 ADT	\$8.73
4 ADT	\$9.31
5 ADT	\$6.64
6 RMO	\$7.99
7 RMO	\$8.99
8 RMO	\$8.24
9 RMO	\$8.49
10 RMO	\$8.99
11 RMO	\$7.90
12 RMO	\$9.49
13 RMO	\$8.49
14 RMO	\$13.79
15 RMO	\$7.90
16 RMO	\$7.56
17 RMO	\$8.49
18 RMO	\$7.90
19 RMO	\$6.19
20 RMO	\$7.49
21 RMO	\$8.50
22 RMO	\$9.99
23 RMO	\$7.90
24 RMO	\$7.74
25 VRT	\$9.85
26 VRT	\$9.79
27 VRT	\$10.29
28 VRT	\$7.99
29 VRT	\$8.19
30 VRT	\$14.79
31 VRT	\$8.49
32 VRT	\$13.50
33 VRT	\$8.99
34 VRT	\$9.92
35 VRT	\$8.09
36 VRT	\$9.39
37 VRT	\$15.84
38 VRT	\$8.89
39 VRT	\$12.69
40 VRT	\$10.90
41 VRT	\$12.70
42 VRT	\$8.89
43 VRT	\$13.27
44 VRT	\$12.20
45 VRT	\$13.79



46 VRT	\$14.65
47 VRT	\$7.10
48 VRT	\$17.17
49 VRT	\$6.95
50 VRT	\$10.58
51 VRT	\$12.90
52 VRT	\$11.95
53 VRT	\$11.72
54 DGY	\$6.41
55 DGY	\$6.41
56 TT	\$6.62
57 TT	\$6.72
58 TT	\$6.62
59 TT	\$6.02
60 TT	\$6.02
CKY GCA	\$6.9554

PSC Case No. 2013-00167  
KY AG 1-35  
Attachment A  
Respondent: Judy M Cooper

Columbia Gas of Kentucky, Inc.  
Customer Choice Program  
Marketer Billing Rates

PSC Case No. 2013-00167  
KY AG 1-35  
Attachment A  
Respondent: Judy M Cooper

ACTIVE MARKETER BILL/CODES AND PGAS -- FOR THE MONTH  
OF SEPTEMBER, 2010 (UNIT ONE BILLING: 08/27/10)

MARKETER NAME	RATE(\$MCF)
1 ADT	\$7.60
2 ADT	\$7.37
3 ADT	\$8.73
4 ADT	\$9.31
5 ADT	\$7.22
6 RMO	\$7.99
7 RMO	\$8.99
8 RMO	\$8.24
9 RMO	\$8.49
10 RMO	\$8.99
11 RMO	\$7.90
12 RMO	\$9.49
13 RMO	\$8.49
14 RMO	\$13.79
15 RMO	\$7.90
16 RMO	\$7.56
17 RMO	\$8.49
18 RMO	\$7.90
19 RMO	\$9.79
20 RMO	\$10.99
21 RMO	\$8.50
22 RMO	\$9.99
23 RMO	\$7.90
24 RMO	\$7.74
25 VRT	\$9.85
26 VRT	\$9.79
27 VRT	\$10.29
28 VRT	\$8.99
29 VRT	\$8.19
30 VRT	\$14.79
31 VRT	\$8.49
32 VRT	\$13.50
33 VRT	\$8.99
34 VRT	\$9.92
35 VRT	\$8.09
36 VRT	\$9.39
37 VRT	\$15.84
38 VRT	\$8.89
39 VRT	\$12.69
40 VRT	\$10.90
41 VRT	\$12.70
42 VRT	\$8.89
43 VRT	\$13.27
44 VRT	\$12.20
45 VRT	\$13.79

46 VRT	\$14.65
47 VRT	\$7.10
48 VRT	\$17.17
49 VRT	\$10.60
50 VRT	\$10.58
51 VRT	\$12.90
52 VRT	\$11.95
53 VRT	\$11.72
54 DGY	\$6.89
55 DGY	\$6.88
56 TT	\$6.62
57 TT	\$6.72
58 TT	\$6.62
59 TT	\$6.02
60 TT	\$6.02
CKY GCA	\$6.9554

PSC Case No. 2013-00167  
KY AG 1-35  
Attachment A  
Respondent: Judy M Cooper

Columbia Gas of Kentucky, Inc.  
Customer Choice Program  
Marketer Billing Rates

PSC Case No. 2013-00167  
KY AG 1-35  
Attachment A  
Respondent: Judy M Cooper

ACTIVE MARKETER BILL/CODES AND PGAS -- FOR THE MONTH  
OF AUGUST, 2010 (UNIT ONE BILLING: 07/29/10)

MARKETER NAME	RATE(\$MCF)
1 ADT	\$8.31
2 ADT	\$8.08
3 ADT	\$8.73
4 ADT	\$9.31
5 ADT	\$7.89
6 RMO	\$7.99
7 RMO	\$8.99
8 RMO	\$8.24
9 RMO	\$8.49
10 RMO	\$8.99
11 RMO	\$7.90
12 RMO	\$9.49
13 RMO	\$8.49
14 RMO	\$13.79
15 RMO	\$7.90
16 RMO	\$7.51
17 RMO	\$8.49
18 RMO	\$7.90
19 RMO	\$9.79
20 RMO	\$10.99
21 RMO	\$8.50
22 RMO	\$9.99
23 RMO	\$7.90
24 RMO	\$7.74
25 VRT	\$9.85
26 VRT	\$9.79
27 VRT	\$10.29
28 VRT	\$8.99
29 VRT	\$8.19
30 VRT	\$14.79
31 VRT	\$8.49
32 VRT	\$13.50
33 VRT	\$8.99
34 VRT	\$9.92
35 VRT	\$8.09
36 VRT	\$9.39
37 VRT	\$15.84
38 VRT	\$8.89
39 VRT	\$12.69
40 VRT	\$10.90
41 VRT	\$12.70
42 VRT	\$8.89
43 VRT	\$13.27
44 VRT	\$12.20
45 VRT	\$13.79

46 VRT	\$14.65
47 VRT	\$7.10
VRT	\$17.17
VRT	\$10.60
50 VRT	\$10.58
51 VRT	\$12.90
52 VRT	\$11.95
53 VRT	\$11.72
54 DGY	\$7.37
55 TT	\$6.57
56 TT	\$6.67
57 TT	\$6.17
58 TT	\$6.02
59 TT	\$6.02
CKY GCA	\$4.4169

PSC Case No. 2013-00167  
 KY AG 1-35  
 Attachment A  
 Respondent: Judy M Cooper

Columbia Gas of Kentucky, Inc.  
Customer Choice Program  
Marketer Billing Rates

PSC Case No. 2013-00167  
KY AG 1-35  
Attachment A  
Respondent: Judy M Cooper

ACTIVE MARKETER BILL/CODES AND PGAS -- FOR THE MONTH  
OF JULY, 2010 (UNIT ONE BILLING: 06/29/10)

MARKETER NAME	RATE(\$MCF)
1 ADT	\$8.49
2 ADT	\$8.26
3 ADT	\$8.73
4 ADT	\$9.31
5 ADT	\$8.07
6 RMO	\$7.99
7 RMO	\$8.99
8 RMO	\$8.24
9 RMO	\$8.49
10 RMO	\$8.99
11 RMO	\$7.90
12 RMO	\$9.49
13 RMO	\$8.49
14 RMO	\$13.79
15 RMO	\$7.90
16 RMO	\$6.95
17 RMO	\$8.49
18 RMO	\$7.90
19 RMO	\$9.79
20 RMO	\$10.99
21 RMO	\$8.50
22 RMO	\$9.99
23 RMO	\$7.90
24 RMO	\$7.74
25 VRT	\$9.85
26 VRT	\$9.79
27 VRT	\$10.29
28 VRT	\$8.99
29 VRT	\$8.19
30 VRT	\$14.79
31 VRT	\$8.49
32 VRT	\$13.50
33 VRT	\$8.99
34 VRT	\$9.92
35 VRT	\$8.09
36 VRT	\$9.39
37 VRT	\$15.84
38 VRT	\$8.89
39 VRT	\$12.69
40 VRT	\$10.90
41 VRT	\$12.70
42 VRT	\$8.89
43 VRT	\$13.27
44 VRT	\$12.20
45 VRT	\$13.79
46 VRT	\$14.65

47 VRT	\$12.26
48 VRT	\$17.17
49 VRT	\$10.60
50 VRT	\$10.58
51 VRT	\$12.90
52 VRT	\$11.95
53 VRT	\$11.72
54 DGY	\$6.92
55 TT	\$6.01
56 TT	\$6.11
57 TT	\$6.01
58 TT	\$6.02
59 TT	\$6.02
CKY GCA	\$4.4169

PSC Case No. 2013-00167  
KY AG 1-35  
Attachment A  
Respondent: Judy M Cooper

Columbia Gas of Kentucky, Inc.  
Customer Choice Program  
Marketer Billing Rates

PSC Case No. 2013-00167  
KY AG 1-35  
Attachment A  
Respondent: Judy M Cooper

ACTIVE MARKETER BILL/CODES AND PGAS -- FOR THE MONTH  
OF JUNE, 2010 (UNIT ONE BILLING: 05/29/10)

MARKETER NAME	RATE(\$MCF)
1 ADT	\$8.51
2 ADT	\$8.28
3 ADT	\$8.73
4 ADT	\$9.31
5 ADT	\$8.08
6 RMO	\$7.99
7 RMO	\$8.99
8 RMO	\$8.24
9 RMO	\$8.49
10 RMO	\$8.99
11 RMO	\$8.49
12 RMO	\$9.49
13 RMO	\$8.49
14 RMO	\$13.79
15 RMO	\$6.99
16 RMO	\$7.06
17 RMO	\$8.49
18 RMO	\$8.49
19 RMO	\$9.79
20 RMO	\$10.99
21 RMO	\$8.50
22 RMO	\$9.99
23 RMO	\$8.49
24 RMO	\$7.74
25 VRT	\$9.85
26 VRT	\$9.79
27 VRT	\$10.29
28 VRT	\$8.59
29 VRT	\$8.19
30 VRT	\$14.79
31 VRT	\$8.49
32 VRT	\$13.50
33 VRT	\$13.99
34 VRT	\$9.92
35 VRT	\$8.09
36 VRT	\$9.39
37 VRT	\$15.84
38 VRT	\$8.89
39 VRT	\$12.69
40 VRT	\$10.90
41 VRT	\$12.70
42 VRT	\$8.89
43 VRT	\$13.27
44 VRT	\$12.20
45 VRT	\$13.79



46 VRT	\$14.65
47 VRT	\$12.26
VRT	\$17.17
VRT	\$10.60
50 VRT	\$10.58
51 VRT	\$12.90
52 VRT	\$11.95
53 VRT	\$11.72
54 DGY	\$6.03
55 TT	\$5.74
56 TT	\$5.99
57 TT	\$6.24
58 TT	\$5.99
59 TT	\$5.99
CKY GCA	\$4.4169

PSC Case No. 2013-00167  
KY AG 1-35  
Attachment A  
Respondent: Judy M Cooper

Columbia Gas of Kentucky, Inc.  
Customer Choice Program  
Marketer Billing Rates

PSC Case No. 2013-00167  
KY AG 1-35  
Attachment A  
Respondent: Judy M Cooper

ACTIVE MARKETER BILL/CODES AND PGAS -- FOR THE MONTH  
OF MAY, 2010 (UNIT ONE BILLING: 04/29/10)

MARKETER NAME	RATE(\$MCF)
1 ADT	\$8.34
2 ADT	\$8.20
3 ADT	\$8.73
4 ADT	\$9.31
5 ADT	\$7.92
6 RMO	\$7.99
7 RMO	\$8.99
8 RMO	\$8.24
9 RMO	\$8.49
10 RMO	\$8.99
11 RMO	\$8.49
12 RMO	\$9.49
13 RMO	\$8.49
14 RMO	\$13.79
15 RMO	\$6.99
16 RMO	\$6.63
17 RMO	\$8.49
18 RMO	\$8.49
19 RMO	\$9.79
20 RMO	\$10.99
21 RMO	\$8.50
22 RMO	\$9.99
23 RMO	\$8.49
24 RMO	\$7.74
25 VRT	\$9.85
26 VRT	\$9.79
27 VRT	\$10.29
28 VRT	\$7.99
29 VRT	\$8.19
30 VRT	\$14.79
31 VRT	\$12.30
32 VRT	\$13.50
33 VRT	\$13.99
34 VRT	\$9.92
35 VRT	\$8.09
36 VRT	\$9.39
37 VRT	\$15.84
38 VRT	\$8.89
39 VRT	\$12.69
40 VRT	\$10.90
41 VRT	\$12.70
42 VRT	\$8.89
43 VRT	\$13.27
44 VRT	\$12.20
45 VRT	\$13.79

46 VRT	\$14.65
47 VRT	\$12.26
VRT	\$17.17
VRT	\$10.60
50 VRT	\$10.58
51 VRT	\$12.90
52 VRT	\$11.95
53 VRT	\$11.72
54 DGY	\$3.98
CKY GCA	\$6.4139

PSC Case No. 2013-00167  
KY AG 1-35  
Attachment A  
Respondent: Judy M Cooper

Columbia Gas of Kentucky, Inc.  
Customer Choice Program  
Marketer Billing Rates

PSC Case No. 2013-00167  
KY AG 1-35  
Attachment A  
Respondent: Judy M Cooper

ACTIVE MARKETER BILL/CODES AND PGAS -- FOR THE MONTH  
OF APRIL, 2010 (UNIT ONE BILLING: 03/29/10)

MARKETER NAME	RATE(\$MCF)
1 ADT	\$8.47
2 ADT	\$8.32
3 ADT	\$8.73
4 ADT	\$9.31
5 ADT	\$8.05
6 RMO	\$7.99
7 RMO	\$8.99
8 RMO	\$8.24
9 RMO	\$8.49
10 RMO	\$8.99
11 RMO	\$8.49
12 RMO	\$9.49
13 RMO	\$8.49
14 RMO	\$13.79
15 RMO	\$7.99
16 RMO	\$7.61
17 RMO	\$8.49
18 RMO	\$8.49
19 RMO	\$9.79
20 RMO	\$10.99
21 RMO	\$8.50
22 RMO	\$9.99
23 RMO	\$8.49
24 RMO	\$10.24
25 VRT	\$9.85
26 VRT	\$9.79
27 VRT	\$10.29
28 VRT	\$8.29
29 VRT	\$12.80
30 VRT	\$14.79
31 VRT	\$12.30
32 VRT	\$13.50
33 VRT	\$13.99
34 VRT	\$9.92
35 VRT	\$8.09
36 VRT	\$9.39
37 VRT	\$15.84
38 VRT	\$8.89
39 VRT	\$12.69
40 VRT	\$10.90
41 VRT	\$12.70
42 VRT	\$8.89
43 VRT	\$13.27
44 VRT	\$12.20
45 VRT	\$13.79

46 VRT	\$14.65
47 VRT	\$12.26
48 VRT	\$17.17
49 VRT	\$10.60
50 VRT	\$10.58
51 VRT	\$12.90
52 VRT	\$11.95
53 VRT	\$11.72
54 DGY	\$7.13
CKY GCA	\$6.4139

PSC Case No. 2013-00167  
KY AG 1-35  
Attachment A  
Respondent: Judy M Cooper

Columbia Gas of Kentucky, Inc.  
Customer Choice Program  
Marketer Billing Rates

PSC Case No. 2013-00167  
KY AG 1-35  
Attachment A  
Respondent: Judy M Cooper

ACTIVE MARKETER BILL/CODES AND PGAS – FOR THE MONTH OF MARCH,  
2010 (UNIT ONE BILLING: 03/01/10)

MARKETER NAME	RATE(\$MCF)
1 ADT	\$8.47
2 ADT	\$8.32
3 ADT	\$8.73
4 ADT	\$9.31
5 ADT	\$8.05
6 RMO	\$7.99
7 RMO	\$8.99
8 RMO	\$8.24
9 RMO	\$8.49
10 RMO	\$8.99
11 RMO	\$8.49
12 RMO	\$9.49
13 RMO	\$8.49
14 RMO	\$13.79
15 RMO	\$7.99
16 RMO	\$8.06
17 RMO	\$8.49
18 RMO	\$8.49
19 RMO	\$9.79
20 RMO	\$10.99
21 RMO	\$8.50
22 RMO	\$9.99
23 RMO	\$8.49
24 RMO	\$10.24
25 VRT	\$9.85
26 VRT	\$8.19
27 VRT	\$10.29
28 VRT	\$9.29
29 VRT	\$12.80
30 VRT	\$14.79
31 VRT	\$12.30
32 VRT	\$13.50
33 VRT	\$13.99
34 VRT	\$9.92
35 VRT	\$8.09
36 VRT	\$15.40
37 VRT	\$15.84
38 VRT	\$8.89
39 VRT	\$12.69
40 VRT	\$10.90
41 VRT	\$12.70
42 VRT	\$12.32
43 VRT	\$13.27
44 VRT	\$12.20
45 VRT	\$13.79

46 VRT	\$14.65
47 VRT	\$12.26
VRT	\$17.17
VRT	\$10.60
50 VRT	\$10.58
51 VRT	\$12.90
52 VRT	\$11.95
53 VRT	\$11.72
CKY GCA	\$6.4139

PSC Case No. 2013-00167  
KY AG 1-35  
Attachment A  
Respondent: Judy M Cooper

Columbia Gas of Kentucky, Inc.  
Customer Choice Program  
Marketer Billing Rates

PSC Case No. 2013-00167  
KY AG 1-35  
Attachment A  
Respondent: Judy M Cooper

ACTIVE MARKETER BILL/CODES AND PGAS -- FOR THE MONTH  
OF FEBRUARY, 2010 (UNIT ONE BILLING: 01/29/10)

MARKETER NAME	RATE(\$MCF)
1 ADT	\$9.39
2 ADT	\$9.24
3 ADT	\$8.73
4 ADT	\$9.31
5 ADT	\$8.92
6 RMO	\$7.99
7 RMO	\$8.99
8 RMO	\$8.24
9 RMO	\$8.49
10 RMO	\$8.99
11 RMO	\$8.99
12 RMO	\$9.49
13 RMO	\$8.49
14 RMO	\$13.79
15 RMO	\$8.49
16 RMO	\$8.60
17 RMO	\$8.49
18 RMO	\$8.99
19 RMO	\$9.79
20 RMO	\$10.99
21 RMO	\$8.50
22 RMO	\$9.99
23 RMO	\$8.99
24 RMO	\$10.24
25 VRT	\$9.85
26 VRT	\$8.19
27 VRT	\$13.50
28 VRT	\$9.29
29 VRT	\$12.80
30 VRT	\$14.79
31 VRT	\$12.30
32 VRT	\$13.50
33 VRT	\$13.99
34 VRT	\$9.92
35 VRT	\$8.09
36 VRT	\$15.40
37 VRT	\$15.84
38 VRT	\$8.89
39 VRT	\$12.69
40 VRT	\$10.90
41 VRT	\$12.70
42 VRT	\$12.32
43 VRT	\$13.27
44 VRT	\$12.20
45 VRT	\$13.79
46 VRT	\$14.65



47 VRT	\$12.26
48 VRT	\$17.17
VRT	\$10.60
VRT	\$10.58
51 VRT	\$12.90
52 VRT	\$11.95
53 VRT	\$11.72
CKY GCA	\$4.3688

PSC Case No. 2013-00167  
KY AG 1-35  
Attachment A  
Respondent: Judy M Cooper

Columbia Gas of Kentucky, Inc.  
Customer Choice Program  
Marketer Billing Rates

PSC Case No. 2013-00167  
KY AG 1-35  
Attachment A  
Respondent: Judy M Cooper

Active Maketer Bill / Codes And PGAs -- For the Month of January,  
2010 (Unit One Billing: 12/30/09)

MARKETER NAME	RATE(\$MCF)
1 ADT	\$9.39
2 ADT	\$9.24
3 ADT	\$8.73
4 ADT	\$9.31
5 ADT	\$8.92
6 RMO	\$7.99
7 RMO	\$8.99
8 RMO	\$8.24
9 RMO	\$8.49
10 RMO	\$8.99
11 RMO	\$8.49
12 RMO	\$9.49
13 RMO	\$8.49
14 RMO	\$13.79
15 RMO	\$8.49
16 RMO	\$7.28
17 RMO	\$8.49
18 RMO	\$8.49
19 RMO	\$9.79
20 RMO	\$10.99
21 RMO	\$8.50
22 RMO	\$9.99
23 RMO	\$8.49
24 RMO	\$10.24
25 VRT	\$9.85
26 VRT	\$8.19
27 VRT	\$13.50
28 VRT	\$8.99
29 VRT	\$12.80
30 VRT	\$14.79
31 VRT	\$12.30
32 VRT	\$13.50
33 VRT	\$13.99
34 VRT	\$9.92
35 VRT	\$8.09
36 VRT	\$15.40
37 VRT	\$15.84
38 VRT	\$8.89
39 VRT	\$12.69
40 VRT	\$10.90
41 VRT	\$12.70
42 VRT	\$12.32
43 VRT	\$13.27
44 VRT	\$12.20
45 VRT	\$13.79
46 VRT	\$14.65
47 VRT	\$12.26

Columbia Gas of Kentucky, Inc.  
Customer Choice Program  
Marketer Billing Rates

PSC Case No. 2013-00167  
KY AG 1-35  
Attachment A  
Respondent: Judy M Cooper

Active Maketer Bill / Codes And PGAs -- For the Month of January,  
2010 (Unit One Billing: 12/30/09)

MARKETER NAME	RATE(\$MCF)
48 VRT	\$17.17
49 VRT	\$10.60
50 VRT	\$10.58
51 VRT	\$12.90
52 VRT	\$11.95
53 VRT	\$11.72
CKY GCA	\$4.3688

Columbia Gas of Kentucky, Inc.  
Customer Choice Program  
Marketer Billing Rates

PSC Case No. 2013-00167  
KY AG 1-35  
Attachment A  
Respondent: Judy M Cooper

Active Maketer Bill / Codes And PGAs -- For the Month of December,  
2009 (Unit One Billing: 11/25/09)

Marketer Name	Rate (\$/MCF)
1 ADT	\$7.75
2 ADT	\$7.59
3 ADT	\$7.36
4 RMO	\$7.99
5 RMO	\$8.99
6 RMO	\$8.24
7 RMO	\$8.49
8 RMO	\$8.99
9 RMO	\$8.99
10 RMO	\$9.49
11 RMO	\$8.90
12 RMO	\$13.79
13 RMO	\$8.90
14 RMO	\$6.52
15 RMO	\$8.90
16 RMO	\$8.99
17 RMO	\$9.79
18 RMO	\$10.99
19 RMO	\$11.99
20 RMO	\$9.99
21 RMO	\$8.99
22 RMO	\$10.24
23 VRT	\$9.85
24 VRT	\$8.19
25 VRT	\$13.50
26 VRT	\$8.99
27 VRT	\$12.80
28 VRT	\$14.79
29 VRT	\$12.30
30 VRT	\$13.50
31 VRT	\$13.99
32 VRT	\$9.92
33 VRT	\$8.09
34 VRT	\$15.40
35 VRT	\$15.84
36 VRT	\$8.89
37 VRT	\$12.69
38 VRT	\$10.90
39 VRT	\$12.70
40 VRT	\$12.32
41 VRT	\$13.27
42 VRT	\$12.20
43 VRT	\$13.79
44 VRT	\$14.65
45 VRT	\$12.26
46 VRT	\$17.17
47 VRT	\$10.60

Columbia Gas of Kentucky, Inc.  
Customer Choice Program  
Marketer Billing Rates

PSC Case No. 2013-00167  
KY AG 1-35  
Attachment A  
Respondent: Judy M Cooper

Active Maketer Bill / Codes And PGAs -- For the Month of December,  
2009 (Unit One Billing: 11/25/09)

Marketer Name	Rate (\$/MCF)
48 VRT	\$10.58
49 VRT	\$12.90
50 VRT	\$11.95
51 VRT	\$11.72
CKY GCA	\$4.3688

Columbia Gas of Kentucky, Inc.  
Customer Choice Program  
Marketer Billing Rates

PSC Case No. 2013-00167  
KY AG 1-35  
Attachment A  
Respondent: Judy M Cooper

Active Marketer Bill / Codes And PGAs -- For the Month  
of November, 2009 (Unit One Billing: 10/27/09)

Marketer Name	Rate (\$/MCF)
1 RMO	\$7.99
2 RMO	\$8.99
3 RMO	\$8.24
4 RMO	\$8.49
5 RMO	\$8.99
6 RMO	\$8.99
7 RMO	\$9.49
8 RMO	\$8.90
9 RMO	\$13.79
10 RMO	\$8.90
11 RMO	\$6.52
12 RMO	\$8.90
13 RMO	\$8.99
14 RMO	\$9.79
15 RMO	\$10.99
16 RMO	\$11.99
17 RMO	\$9.99
18 RMO	\$8.99
19 RMO	\$10.24
20 VRT	\$9.85
21 VRT	\$8.19
22 VRT	\$13.50
23 VRT	\$8.99
24 VRT	\$12.80
25 VRT	\$14.79
26 VRT	\$12.30
27 VRT	\$13.50
28 VRT	\$13.99
29 VRT	\$9.92
30 VRT	\$8.09
31 VRT	\$15.40
32 VRT	\$15.84
33 VRT	\$8.89
34 VRT	\$12.69
35 VRT	\$10.90
36 VRT	\$12.70
37 VRT	\$12.32
38 VRT	\$13.27
39 VRT	\$12.20
40 VRT	\$13.79
41 VRT	\$14.65
42 VRT	\$12.26
43 VRT	\$17.17
44 VRT	\$10.60
45 VRT	\$10.58
46 VRT	\$12.90
47 VRT	\$11.95

Columbia Gas of Kentucky, Inc.  
Customer Choice Program  
Marketer Billing Rates

PSC Case No. 2013-00167  
KY AG 1-35  
Attachment A  
Respondent: Judy M Cooper

Active Maketer Bill / Codes And PGAs -- For the Month  
of November, 2009 (Unit One Billing: 10/27/09)

Marketer Name	Rate (\$/MCF)
48 VRT	\$11.72
CKY GCA	\$3.6835

Columbia Gas of Kentucky, Inc.  
Customer Choice Program  
Marketer Billing Rates

PSC Case No. 2013-00167  
KY AG 1-35  
Attachment A  
Respondent: Judy M Cooper

Active Maketer Bill / Codes And PGAs -- For the Month  
of October, 2009 (Unit One Billing: 09/28/09)

Marketer Name	Rate (\$/MCF)
1 RMO	\$7.99
2 RMO	\$8.99
3 RMO	\$8.24
4 RMO	\$8.49
5 RMO	\$8.99
6 RMO	\$8.99
7 RMO	\$9.49
8 RMO	\$7.90
9 RMO	\$13.79
10 RMO	\$7.90
11 RMO	\$5.63
12 RMO	\$7.90
13 RMO	\$8.99
14 RMO	\$9.79
15 RMO	\$10.99
16 RMO	\$11.99
17 RMO	\$9.99
18 RMO	\$8.99
19 RMO	\$10.24
20 VRT	\$9.85
21 VRT	\$8.19
22 VRT	\$13.50
23 VRT	\$7.09
24 VRT	\$12.80
25 VRT	\$14.79
26 VRT	\$12.30
27 VRT	\$13.50
28 VRT	\$13.99
29 VRT	\$9.92
30 VRT	\$8.09
31 VRT	\$15.40
32 VRT	\$15.84
33 VRT	\$8.89
34 VRT	\$12.69
35 VRT	\$10.90
36 VRT	\$12.70
37 VRT	\$12.32
38 VRT	\$13.27
39 VRT	\$12.20
40 VRT	\$13.79
41 VRT	\$14.65
42 VRT	\$12.26
43 VRT	\$17.17
44 VRT	\$10.60
45 VRT	\$10.58
46 VRT	\$12.90
47 VRT	\$11.95



Columbia Gas of Kentucky, Inc.  
Customer Choice Program  
Marketer Billing Rates

PSC Case No. 2013-00167  
KY AG 1-35  
Attachment A  
Respondent: Judy M Cooper

Active Marketer Bill / Codes And PGAs -- For the Month  
of October, 2009 (Unit One Billing: 09/28/09)

Marketer Name	Rate (\$/MCF)
48 VRT	\$11.72
CKY GCA	\$3.6117

Columbia Gas of Kentucky, Inc.  
Customer Choice Program  
Marketer Billing Rates

PSC Case No. 2013-00167  
KY AG 1-35  
Attachment A  
Respondent: Judy M Cooper

Active Maketer Bill / Codes And PGAs -- For the Month  
of September, 2009 (Unit One Billing: 08/27/09)

Marketer Name	Rate (\$/MCF)
1 RMO	\$7.99
2 RMO	\$8.99
3 RMO	\$8.24
4 RMO	\$8.49
5 RMO	\$8.99
6 RMO	\$7.90
7 RMO	\$8.99
8 RMO	\$5.94
9 RMO	\$13.89
10 RMO	\$6.90
11 RMO	\$7.25
12 RMO	\$6.09
13 RMO	\$7.90
14 RMO	\$9.79
15 RMO	\$10.99
16 RMO	\$11.99
17 RMO	\$9.79
18 RMO	\$7.90
19 RMO	\$10.24
20 VRT	\$9.85
21 VRT	\$8.19
22 VRT	\$13.50
23 VRT	\$7.89
24 VRT	\$12.80
25 VRT	\$14.79
26 VRT	\$12.30
27 VRT	\$13.50
28 VRT	\$13.99
29 VRT	\$9.92
30 VRT	\$8.09
31 VRT	\$15.40
32 VRT	\$15.84
33 VRT	\$8.89
34 VRT	\$12.69
35 VRT	\$10.90
36 VRT	\$12.70
37 VRT	\$12.32
38 VRT	\$13.27
39 VRT	\$12.20
40 VRT	\$13.79
41 VRT	\$14.65
42 VRT	\$12.26
43 VRT	\$17.17
44 VRT	\$10.60
45 VRT	\$10.58
46 VRT	\$12.90
47 VRT	\$11.95

Columbia Gas of Kentucky, Inc.  
Customer Choice Program  
Marketer Billing Rates

PSC Case No. 2013-00167  
KY AG 1-35  
Attachment A  
Respondent: Judy M Cooper

Active Maketer Bill / Codes And PGAs -- For the Month  
of September, 2009 (Unit One Billing: 08/27/09)

Marketer Name	Rate (\$/MCF)
48 VRT	\$11.72
CKY GCA	\$3.6117

Columbia Gas of Kentucky, Inc.  
Customer Choice Program  
Marketer Billing Rates

PSC Case No. 2013-00167  
KY AG 1-35  
Attachment A  
Respondent: Judy M Cooper

Active Maketer Bill / Codes And PGAs -- For the Month  
of August, 2009 (Unit One Billing: 07/29/09)

Marketer Name	Rate (\$/MCF)
1 RMO	\$7.99
2 RMO	\$8.99
3 RMO	\$8.24
4 RMO	\$8.49
5 RMO	\$8.99
6 RMO	\$7.90
7 RMO	\$8.99
8 RMO	\$5.47
9 RMO	\$13.89
10 RMO	\$7.90
11 RMO	\$7.25
12 RMO	\$5.62
13 RMO	\$7.90
14 RMO	\$9.79
15 RMO	\$10.99
16 RMO	\$11.99
17 RMO	\$9.79
18 RMO	\$12.80
RMO	\$10.24
VRT	\$9.85
21 VRT	\$18.63
22 VRT	\$13.50
23 VRT	\$8.99
24 VRT	\$12.80
25 VRT	\$14.79
26 VRT	\$12.30
27 VRT	\$13.50
28 VRT	\$13.99
29 VRT	\$9.92
30 VRT	\$8.09
31 VRT	\$15.40
32 VRT	\$15.84
33 VRT	\$8.89
34 VRT	\$12.69
35 VRT	\$10.90
36 VRT	\$12.70
37 VRT	\$12.32
38 VRT	\$13.27
39 VRT	\$12.20
40 VRT	\$13.79
41 VRT	\$14.65
42 VRT	\$12.26
43 VRT	\$17.17
VRT	\$10.60
VRT	\$10.58
46 VRT	\$12.90
47 VRT	\$11.95

Columbia Gas of Kentucky, Inc.  
Customer Choice Program  
Marketer Billing Rates

PSC Case No. 2013-00167  
KY AG 1-35  
Attachment A  
Respondent: Judy M Cooper

Active Marketer Bill / Codes And PGAs -- For the Month  
of August, 2009 (Unit One Billing: 07/29/09)

Marketer Name	Rate (\$/MCF)
48 VRT	\$11.72
CKY GCA	\$7.9067

Columbia Gas of Kentucky, Inc.  
Customer Choice Program  
Marketer Billing Rates

PSC Case No. 2013-00167  
KY AG 1-35  
Attachment A  
Respondent: Judy M Cooper

Active Maketer Bill / Codes And PGAs -- For the Month  
of July, 2009 (Unit One Billing: 06/29/09)

Marketer Name	Rate (\$/MCF)
1 RMO	\$7.99
2 RMO	\$8.99
3 RMO	\$8.24
4 RMO	\$8.49
5 RMO	\$8.99
6 RMO	\$7.90
7 RMO	\$8.99
8 RMO	\$5.47
9 RMO	\$13.89
10 RMO	\$7.90
11 RMO	\$7.25
12 RMO	\$5.62
13 RMO	\$7.90
14 RMO	\$9.79
15 RMO	\$10.99
16 RMO	\$11.99
17 RMO	\$9.79
18 RMO	\$12.80
19 RMO	\$10.24
20 VRT	\$9.85
21 VRT	\$18.63
22 VRT	\$13.50
23 VRT	\$8.99
24 VRT	\$12.80
25 VRT	\$14.79
26 VRT	\$12.30
27 VRT	\$13.50
28 VRT	\$13.99
29 VRT	\$9.92
30 VRT	\$12.88
31 VRT	\$15.40
32 VRT	\$15.84
33 VRT	\$8.89
34 VRT	\$12.69
35 VRT	\$10.90
36 VRT	\$12.70
37 VRT	\$12.32
38 VRT	\$13.27
39 VRT	\$12.20
40 VRT	\$13.79
41 VRT	\$14.65
42 VRT	\$12.26
43 VRT	\$17.17
44 VRT	\$10.60
45 VRT	\$10.58
46 VRT	\$12.90
47 VRT	\$11.95

Columbia Gas of Kentucky, Inc.  
Customer Choice Program  
Marketer Billing Rates

PSC Case No. 2013-00167  
KY AG 1-35  
Attachment A  
Respondent: Judy M Cooper

Active Marketer Bill / Codes And PGAs – For the Month  
of July, 2009 (Unit One Billing: 06/29/09)

Marketer Name	Rate (\$/MCF)
48 VRT	\$11.72
CKY GCA	\$7.9067

Columbia Gas of Kentucky, Inc.  
Customer Choice Program  
Marketer Billing Rates

PSC Case No. 2013-00167  
KY AG 1-35  
Attachment A  
Respondent: Judy M Cooper

Active Marketer Bill / Codes And PGAs -- For the Month  
of June, 2009 (Unit One Billing: 05/29/09)

Marketer Name	Rate (\$/MCF)
1 RMO	\$7.99
2 RMO	\$8.99
3 RMO	\$8.24
4 RMO	\$8.49
5 RMO	\$8.99
6 RMO	\$7.90
7 RMO	\$8.99
8 RMO	\$5.47
9 RMO	\$13.89
10 RMO	\$7.90
11 RMO	\$7.25
12 RMO	\$5.62
13 RMO	\$7.90
14 RMO	\$9.79
15 RMO	\$10.99
16 RMO	\$11.99
17 RMO	\$9.79
18 RMO	\$12.80
19 RMO	\$10.24
20 VRT	\$9.85
21 VRT	\$18.63
22 VRT	\$13.50
23 VRT	\$9.89
24 VRT	\$12.80
25 VRT	\$14.79
26 VRT	\$12.30
27 VRT	\$13.50
28 VRT	\$13.99
29 VRT	\$9.92
30 VRT	\$12.88
31 VRT	\$15.40
32 VRT	\$15.84
33 VRT	\$13.38
34 VRT	\$12.69
35 VRT	\$10.90
36 VRT	\$12.70
37 VRT	\$12.32
38 VRT	\$13.27
39 VRT	\$12.20
40 VRT	\$13.79
41 VRT	\$14.65
42 VRT	\$12.26
43 VRT	\$17.17
44 VRT	\$10.60
45 VRT	\$10.58
46 VRT	\$12.90
47 VRT	\$11.95



Columbia Gas of Kentucky, Inc.  
Customer Choice Program  
Marketer Billing Rates

PSC Case No. 2013-00167  
KY AG 1-35  
Attachment A  
Respondent: Judy M Cooper

Active Marketer Bill / Codes And PGAs -- For the Month  
of June, 2009 (Unit One Billing: 05/29/09)

Marketer Name	Rate (\$/MCF)
48 VRT	\$11.72
CKY GCA	\$7.9067

Columbia Gas of Kentucky, Inc.  
Customer Choice Program  
Marketer Billing Rates

PSC Case No. 2013-00167  
KY AG 1-35  
Attachment A  
Respondent: Judy M Cooper

Active Marketer Bill / Codes And PGAs -- For the Month  
of May, 2009 (Unit One Billing: 04/29/09)

Marketer Name	Rate (\$/MCF)
1 RMO	\$7.99
2 RMO	\$8.99
3 RMO	\$8.24
4 RMO	\$8.49
5 RMO	\$8.99
6 RMO	\$9.99
7 RMO	\$8.99
8 RMO	\$7.69
9 RMO	\$13.89
10 RMO	\$9.79
11 RMO	\$7.25
12 RMO	\$7.84
13 RMO	\$9.99
14 RMO	\$9.79
15 RMO	\$10.99
16 RMO	\$11.99
17 RMO	\$9.79
18 RMO	\$12.80
19 RMO	\$10.24
VRT	\$9.85
21 VRT	\$18.63
22 VRT	\$13.50
23 VRT	\$9.89
24 VRT	\$12.80
25 VRT	\$14.79
26 VRT	\$12.30
27 VRT	\$13.50
28 VRT	\$13.99
29 VRT	\$9.92
30 VRT	\$12.88
31 VRT	\$15.40
32 VRT	\$15.84
33 VRT	\$13.38
34 VRT	\$12.69
35 VRT	\$10.90
36 VRT	\$12.70
37 VRT	\$12.32
38 VRT	\$13.27
39 VRT	\$12.20
40 VRT	\$13.79
41 VRT	\$14.65
42 VRT	\$12.26
43 VRT	\$17.17
44 VRT	\$10.60
VRT	\$10.58
46 VRT	\$12.90
47 VRT	\$11.95

Columbia Gas of Kentucky, Inc.  
Customer Choice Program  
Marketer Billing Rates

PSC Case No. 2013-00167  
KY AG 1-35  
Attachment A  
Respondent: Judy M Cooper

Active Marketer Bill / Codes And PGAs -- For the Month  
of May, 2009 (Unit One Billing: 04/29/09)

Marketer Name	Rate (\$/MCF)
48 VRT	\$11.72
CKY GCA	\$10.1224

Columbia Gas of Kentucky, Inc.  
Customer Choice Program  
Marketer Billing Rates

PSC Case No. 2013-00167  
KY AG 1-35  
Attachment A  
Respondent: Judy M Cooper

Active Maketer Bill / Codes And PGAs -- For the Month  
of April, 2009 (Unit One Billing: 03/31/09)

Marketer Name	Rate (\$/MCF)
1 RMO	\$7.99
2 RMO	\$8.99
3 RMO	\$8.24
4 RMO	\$8.49
5 RMO	\$8.99
6 RMO	\$9.99
7 RMO	\$8.99
8 RMO	\$7.69
9 RMO	\$13.89
10 RMO	\$9.79
11 RMO	\$7.25
12 RMO	\$7.84
13 RMO	\$9.99
14 RMO	\$9.79
15 RMO	\$10.99
16 RMO	\$11.99
17 RMO	\$9.79
18 RMO	\$12.80
19 RMO	\$10.24
20 VRT	\$9.85
21 VRT	\$18.63
22 VRT	\$13.50
23 VRT	\$10.09
24 VRT	\$12.80
25 VRT	\$14.79
26 VRT	\$12.30
27 VRT	\$13.50
28 VRT	\$13.99
29 VRT	\$9.92
30 VRT	\$12.88
31 VRT	\$15.40
32 VRT	\$15.84
33 VRT	\$13.38
34 VRT	\$12.69
35 VRT	\$10.90
36 VRT	\$12.70
37 VRT	\$12.32
38 VRT	\$13.27
39 VRT	\$12.20
40 VRT	\$13.79
41 VRT	\$14.65
42 VRT	\$12.26
43 VRT	\$17.17
44 VRT	\$10.60
45 VRT	\$10.58
46 VRT	\$12.90
47 VRT	\$11.95

Columbia Gas of Kentucky, Inc.  
Customer Choice Program  
Marketer Billing Rates

PSC Case No. 2013-00167  
KY AG 1-35  
Attachment A  
Respondent: Judy M Cooper

Active Maketer Bill / Codes And PGAs -- For the Month  
of April, 2009 (Unit One Billing: 03/31/09)

Marketer Name	Rate (\$/MCF)
48 VRT	\$11.72
CKY GCA	\$10.1224

Columbia Gas of Kentucky, Inc.  
Customer Choice Program  
Marketer Billing Rates

PSC Case No. 2013-00167  
KY AG 1-35  
Attachment A  
Respondent: Judy M Cooper

Active Maketer Bill / Codes And PGAs -- For the Month of March, 2009  
(Unit One Billing: 03/02/09)

Marketer Name	Rate (\$/MCF)
1 RMO	\$8.74
2 RMO	\$8.99
3 RMO	\$8.24
4 RMO	\$8.49
5 RMO	\$8.99
6 RMO	\$11.99
7 RMO	\$12.07
8 RMO	\$7.69
9 RMO	\$13.89
10 RMO	\$9.99
11 RMO	\$7.67
12 RMO	\$7.84
13 RMO	\$11.99
14 RMO	\$9.99
15 RMO	\$10.99
16 RMO	\$11.99
17 RMO	\$9.99
18 RMO	\$12.80
19 RMO	\$10.24
20 VRT	\$9.85
21 VRT	\$18.63
22 VRT	\$13.50
23 VRT	\$11.99
24 VRT	\$12.80
25 VRT	\$14.79
26 VRT	\$12.30
27 VRT	\$13.50
28 VRT	\$13.99
29 VRT	\$9.92
30 VRT	\$12.88
31 VRT	\$15.40
32 VRT	\$10.58
33 VRT	\$13.38
34 VRT	\$12.69
35 VRT	\$10.90
36 VRT	\$12.70
37 VRT	\$12.32
38 VRT	\$13.27
39 VRT	\$12.20
40 VRT	\$13.79
41 VRT	\$14.65
42 VRT	\$12.26
43 VRT	\$17.17
44 VRT	\$10.60
45 VRT	\$13.86
46 VRT	\$12.90
47 VRT	\$11.95
48 VRT	\$11.72

Columbia Gas of Kentucky, Inc.  
Customer Choice Program  
Marketer Billing Rates

PSC Case No. 2013-00167  
KY AG 1-35  
Attachment A  
Respondent: Judy M Cooper

Active Maketer Bill / Codes And PGAs -- For the Month of March, 2009  
(Unit One Billing: 03/02/09)

Marketer Name	Rate (\$/MCF)
CKY GCA	\$10.1224

Columbia Gas of Kentucky, Inc.  
Customer Choice Program  
Marketer Billing Rates

PSC Case No. 2013-00167  
KY AG 1-35  
Attachment A  
Respondent: Judy M Cooper

Five Marketer Bill / Codes And PGAs -- For the Month of February, 2009  
(Unit One Billing: 01/30/09)

Marketer Name	Rate (\$/MCF)
1 RMO	\$12.49
2 RMO	\$12.07
3 RMO	\$11.90
4 RMO	\$13.89
5 RMO	\$12.39
6 RMO	\$10.08
7 RMO	\$12.05
8 RMO	\$13.89
9 RMO	\$12.39
10 RMO	\$10.99
11 RMO	\$11.99
12 RMO	\$12.39
13 RMO	\$12.80
14 RMO	\$10.24
15 VRT	\$9.85
16 VRT	\$18.63
17 VRT	\$13.50
18 VRT	\$13.19
19 VRT	\$12.80
20 VRT	\$14.79
21 VRT	\$12.30
22 VRT	\$13.50
23 VRT	\$13.99
24 VRT	\$9.92
25 VRT	\$12.88
26 VRT	\$15.40
27 VRT	\$10.58
28 VRT	\$13.38
29 VRT	\$12.69
30 VRT	\$10.90
31 VRT	\$12.70
32 VRT	\$12.32
33 VRT	\$13.27
34 VRT	\$12.20
35 VRT	\$13.79
36 VRT	\$14.65
37 VRT	\$12.26
38 VRT	\$17.17
39 VRT	\$10.60
40 VRT	\$13.86
41 VRT	\$12.90
42 VRT	\$11.95
43 VRT	\$11.72
CKY GCA	\$13.2687



Columbia Gas of Kentucky, Inc.  
Customer Choice Program  
Marketer Billing Rates

PSC Case No. 2013-00167  
KY AG 1-35  
Attachment A  
Respondent: Judy M Cooper

Active Marketer Bill / Codes And PGAs -- For the Month of January, 2009  
(Unit One Billing: 12/31/08)

Marketer Name	Rate (\$/MCF)
1 RMO	\$12.49
2 RMO	\$12.07
3 RMO	\$11.90
4 RMO	\$13.89
5 RMO	\$12.39
6 RMO	\$10.08
7 RMO	\$12.05
8 RMO	\$13.89
9 RMO	\$12.39
10 RMO	\$10.99
11 RMO	\$11.99
12 RMO	\$12.39
13 RMO	\$12.80
14 RMO	\$10.24
15 VRT	\$9.85
16 VRT	\$18.63
17 VRT	\$13.50
18 VRT	\$13.19
19 VRT	\$12.80
20 VRT	\$14.79
21 VRT	\$12.30
22 VRT	\$13.50
23 VRT	\$13.99
24 VRT	\$9.92
25 VRT	\$12.88
26 VRT	\$15.40
27 VRT	\$10.58
28 VRT	\$13.38
29 VRT	\$12.69
30 VRT	\$10.90
31 VRT	\$12.70
32 VRT	\$12.32
33 VRT	\$13.27
34 VRT	\$12.20
35 VRT	\$13.79
36 VRT	\$14.65
37 VRT	\$12.26
38 VRT	\$17.17
39 VRT	\$10.60
40 VRT	\$13.86
41 VRT	\$12.90
42 VRT	\$11.95
43 VRT	\$11.72
CKY GCA	\$13.2687

KY PSC Case No. 2013-00167  
Response to AG's Data Request Set One No. 036  
Respondents: Herbert A Miller, Jr. and Judy M. Cooper

**COLUMBIA GAS OF KENTUCKY, INC.  
RESPONSE TO ATTORNEY GENERAL'S FIRST  
REQUEST FOR INFORMATION  
DATED JULY 19, 2013**

36. Reference pages 23 and 24 of Mr. Miller's testimony. Provide an example of the "annual disclosure" contemplated by the company. If none exists, explain why not.

**Response:**

Please see response to PSC 2-19.

KY PSC Case No. 2013-00167  
Response to AG's Data Request Set One No. 037  
Respondent: Herbert A Miller, Jr.

**COLUMBIA GAS OF KENTUCKY, INC.  
RESPONSE TO ATTORNEY GENERAL'S FIRST  
REQUEST FOR INFORMATION  
DATED JULY 19, 2013**

37. Reference pages 24 and 25 of Mr. Miller's testimony. Will the company commit to continue its shareholder donations of at least \$125,000 per year to charitable donations as it did in 2012?

**Response:** Yes, Columbia intends to continue this level of shareholder donations.

KY PSC Case No. 2013-00167  
Response to AG's Data Request Set One No. 038  
Respondent: Judy M. Cooper

**COLUMBIA GAS OF KENTUCKY, INC.  
RESPONSE TO ATTORNEY GENERAL'S FIRST  
REQUEST FOR INFORMATION  
DATED JULY 19, 2013**

38. Has the company at any time in the last five years received any notice from any customer that the customer may by-pass Columbia's system? If so, please provide any and all documentation regarding same.

**Response:**

Columbia has not received any written notice over the last five years of a customer that intends to by-pass its system. However, Columbia maintains ongoing general business discussions and dialogue with several customers that have advised that they were analyzing natural gas supply options including potential by-pass of Columbia.

**COLUMBIA GAS OF KENTUCKY, INC.  
RESPONSE TO ATTORNEY GENERAL'S FIRST  
REQUEST FOR INFORMATION  
DATED JULY 19, 2013**

39. Reference page 16 of Mrs. Cooper's testimony.
- a. Provide details of what the company is contemplating when the witness testifies that it is "also considering improvements to awareness of resources available to customers to explain the CHOICE program and tools for evaluating participation so it is easier for customers to make price and other comparisons."
  - b. What "other comparisons" is the company considering?

**Response:**

- a. Please see response to PSC 2-19.
- b. The "other comparisons" that a customer might make include the type of offer, term of the agreement, conditions to the agreement, or even perhaps the company history.

KY PSC Case No. 2013-00167  
Response to AG's Data Request Set One No. 040  
Respondent: Judy M. Cooper

**COLUMBIA GAS OF KENTUCKY, INC.  
RESPONSE TO ATTORNEY GENERAL'S FIRST  
REQUEST FOR INFORMATION  
DATED JULY 19, 2013**

40. Reference JMC-1. Please provide it in Excel format.

**Response:**

The Excel file "AG DR Set 1 No. 40" is on the CD provided.

**COLUMBIA GAS OF KENTUCKY, INC.  
RESPONSE TO ATTORNEY GENERAL'S FIRST  
REQUEST FOR INFORMATION  
DATED JULY 19, 2013**

41. Reference page 3 of Mr. Belle's testimony.
- a. Provide the case numbers of all dockets in which the witness has testified in Ohio.
  - b. Reference the prior question. Provide copies of all testimonies, with exhibits with cells intact, in the Ohio dockets in which the witness has testified.

**Response:**

- a. See list of case numbers.

Case No. 12-2923-GA-RDR

Case No. 11-5803-GA-RDR

Case No. 11-5515-GA-ALT

Case No. 10-2353-GA-RDR

- b. See Attachments A, B, C and D hereto.

**BEFORE  
THE PUBLIC UTILITIES COMMISSION OF OHIO**

In the Matter of the Annual Applica- )  
tion of Columbia Gas of Ohio, Inc. for ) Case No. 12-2923-GA-RDR  
an Adjustment to Rider IRP and Rider )  
DSM Rates )

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**PREPARED DIRECT TESTIMONY OF  
ERIC T. BELLE  
ON BEHALF OF COLUMBIA GAS OF OHIO, INC.**

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Stephen B. Seiple, Asst. General Counsel  
(Counsel of Record)  
Brooke E. Leslie, Sr. Counsel  
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February 28, 2013

Attorneys for  
COLUMBIA GAS OF OHIO, INC.



PREPARED DIRECT TESTIMONY OF ERIC BELLE

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- Q. Please state your name and business address.**
- A. My name is Eric T. Belle and my business address is 200 Civic Center Drive, Columbus, Ohio 43215.
- Q. By who are you employed?**
- A. I am employed by Columbia Gas of Ohio, Inc. ("Columbia"). My current title is Manager, Field Engineering.
- Q. Please summarize your educational background and experience.**
- A. I have a Bachelor of Science degree in Chemical Engineering from Syracuse University, Syracuse, New York and a Master's degree in Business Administration from Tiffin University, Tiffin, Ohio. In 1995, I began my career in Toledo, Ohio with Columbia as an Operations Engineering Trainee where I gained a broad understanding of the natural gas distribution industry. In 1997, I accepted a position as an Operations Engineer in Findlay, Ohio. As an Operations Engineer, I was responsible for evaluating, planning and designing natural gas distribution facilities. I also provided technical assistance and support to the construction and field operations staff involved in the construction, operation, and maintenance of gas distribution facilities. In 2006, I was promoted to Field Engineering Leader where I was responsible for providing technical and budgetary guidance, support, and direction to Columbia's Field Engineering department in northwest Ohio. Additionally, I ensured all projects in northwest Ohio were designed according to all applicable codes and regulations. In 2009, I was promoted to my current position of Manager, Field Engineering for Columbia.
- Q. What are your responsibilities as Manager, Field Engineering?**
- A. As Manager, Field Engineering, my principal responsibilities include overseeing the identification, design, and estimating of generally all capital work for Columbia's gas distribution system. I am also responsible for the development, monitoring, and execution of Columbia's capital budget. I provide leadership and strategic direction to the Field Engineering staff in line with Columbia's goals. I also provide technical guidance and support to Columbia's engineering staff in support of their professional development and the accomplishment of department objectives. I facilitate and encourage the improvement of existing engineering processes, policies and procedures. I monitor and evaluate the performance of Colum-

1           bia's infrastructure replacement program and collaborate with peers to  
2           ensure effective execution of the program.  
3  
4   **Q.    Have you previously testified before this Commission?**  
5    A.    Yes. I previously testified in Case No. 10-2353-GA-RDR, Case No. 11-5803-  
6           GA-RDR, and Case No. 11-5515-GA-ALT.  
7  
8   **Q.    What is the purpose of your testimony?**  
9    A.    The purpose of my testimony is to explain the management, engineering,  
10           and construction practices of Columbia as they relate to the various compo-  
11           nents of Rider IRP, included in this filing, for the 2012 calendar year. I will  
12           also be discussing Columbia's performance with respect to its accelerated  
13           main replacement program and hazardous service line replacement pro-  
14           gram.  
15  
16   **Q.    Please summarize Rider IRP and its components included in this filing.**  
17    A.    Rider IRP is an infrastructure tracker which captures cumulative plant in-  
18           vestment over a specified period of time and provides for a return on and  
19           the return of all program costs. The program components that make up Co-  
20           lumbia's IRP are: (1) the Accelerated Main Replacement Program  
21           ("AMRP"); (2) the replacement of hazardous service lines; and (3) the  
22           AMRD program.  
23  
24   **Q.    Please describe the AMRP and replacement of hazardous service line pro-**  
25           **grams.**  
26    A.    Columbia's AMRP targets certain types of main for replacement over the  
27           course of 25 years. The types of gas main included in the AMRP are unpro-  
28           tected bare steel, unprotected coated steel, wrought iron, and cast iron. The-  
29           se types of main ("Priority Pipe" or "Priority Main") typically have a greater  
30           probability to leak due to their material type, protection, age, and other  
31           characteristics. Also included in the AMRP is the replacement of all metallic  
32           service lines and associated appurtenances.  
33  
34           Columbia also has responsibility of all maintenance, repair, and replacement  
35           of customer-owned service lines that have been determined by Columbia to  
36           present an existing or probable hazard to persons or property.  
37  
38   **Q.    Please summarize the AMRP and hazardous service line performance por-**  
39           **tions of Rider IRP for 2012.**

1 A. For the 2012 AMRP filing, Columbia has included costs for 626 projects as-  
2 sociated with the retirement of Priority Pipe totaling approximately \$155.0  
3 million. The total footage abandoned or retired from service for each type of  
4 main is as follows:

5		
6	Bare Steel:	903,228 feet
7	Iron/Other	67,442 feet
8	Pre-1955 Unprotected Coated Steel:	200,838 feet
9	Post-1955 Coated Steel:	95,760 feet
10	Plastic:	112,723 feet
11		

12 Also, in 2012, Columbia replaced 7,997 hazardous customer service lines for  
13 a total cost of approximately \$22.4 million.

14  
15 **Q. Why did Columbia retire plastic main in conjunction with this replace-**  
16 **ment program?**

17 A. Prior to Columbia's implementation of its AMRP, as Priority Pipe has failed  
18 or leaked, Columbia had replaced small sections with plastic to eliminate the  
19 hazard. These typically short sections of plastic main are scattered through-  
20 out systems consisting primarily of Priority Pipe. As Columbia designs an  
21 infrastructure replacement project and reviews the plastic sections of pipe  
22 located within the project boundaries, Columbia evaluates whether it makes  
23 financial sense to either tie into the existing plastic main or bypass and in-  
24 stall all new main. Sometimes Columbia has no choice in abandoning the  
25 plastic main due to the new main being relocated to a different location.

26  
27 **Q. Has Columbia included the costs to replace segments of plastic main in**  
28 **this filing?**

29 A. Columbia has included the costs of retiring these portions of non priority  
30 pipe main in conjunction with its infrastructure replacement projects in this  
31 tracker. As part of the Joint Stipulation and Recommendation in Case No.  
32 11-5515-GA-ALT approved by the Commission in its Opinion and Order  
33 dated November 26, 2012, Columbia clarified the scope of the AMRP to in-  
34 clude interspersed non-priority main, first generation plastic main, and inef-  
35 fectively coated steel main.

36  
37 Columbia's AMRP was clarified to expressly include interspersed sections of  
38 non-priority pipe contained within the boundary of priority pipe replace-  
39 ment projects where it is more economical to replace such pipe based on the  
40 pipe diameter and length of main to be replaced. Columbia's AMRP was al-

1 so clarified to include first generation plastic pipe or Aldyl-A plastic pipe  
 2 when such pipe is associated with priority pipe in replacement projects. For  
 3 2012, Columbia's retirement of Aldyl-A plastic pipe installed prior to 1982  
 4 associated with an AMRP totaled no more than 4.2% of the total retirement  
 5 footage. Columbia's AMRP was also clarified to expressly include ineffec-  
 6 tively coated steel pipe installed before 1955, which totaled 200,838 feet of  
 7 pipe in 2012.  
 8

9 **Q. How did Columbia determine which mains were to be replaced as part of**  
 10 **its AMRP in 2012?**

11 A. In 2012, Columbia utilized Optimain DS™ to help evaluate and rank pipe  
 12 segments system-wide against a range of environmental conditions (e.g.  
 13 population density, building class, surface cover type, etc.), risk factors (pipe  
 14 segment leak history, pipe condition, pitting depth, depth of cover, etc.) and  
 15 economic factors. In general, we identified, ranked and selected projects  
 16 based on the level of relative risk score that would be removed from the sys-  
 17 tem per every thousand feet of pipe that would be abandoned with the pro-  
 18 ject. We also considered the level of relative risk score that would be re-  
 19 moved from the system per every \$100,000 dollars of capital spent. This  
 20 evaluation and risk ranking of pipe segments was then reviewed by the en-  
 21 gineering and operations departments to assess whether that data was con-  
 22 sistent with what has been observed in the field. In addition, Columbia  
 23 worked collaboratively with local and state governments in areas where  
 24 public improvement work was to occur. Columbia reviewed plans and iden-  
 25 tified areas of Priority Pipe within the scope of pending public improvement  
 26 work. Columbia used both sets of information listed above to help deter-  
 27 mine which sections of main were the best candidates to select for replace-  
 28 ment.  
 29

30 **Q. What are Columbia's construction plans for 2013?**

31 A. Columbia expects to spend approximately \$149.0 million on the various  
 32 components of Rider IRP in 2013. Columbia currently estimates it will spend  
 33 approximately \$21 million on hazardous service lines, \$3.0 million on  
 34 AMRD, and \$125.0 million on replacing infrastructure. A current listing of  
 35 Columbia's largest planned infrastructure projects are shown below.  
 36

PROJECT NAME	CITY	ESTIMATED COST
Elm Street	Toledo	\$5,781,780
West Jefferson AMRP	West Jefferson	\$3,917,500
Secor and Pelham	Toledo	\$3,856,500

Market Street	Steubenville	\$3,853,000
Wood & Kenmore	Parma	\$3,735,000
Pelham Drive	Parma	\$3,696,000
Glenmoor	East Liverpool	\$3,655,000
Tuxedo / Russell	Parma	\$3,413,500
Lawson Avenue	Steubenville	\$3,214,500
Balkan	Toledo	\$3,181,500
Osborn Road	Bay Village	\$2,927,320
Orange Street	Coshocton	\$2,880,200
Oakwood/Champion 20"	Columbus	\$2,640,000
Gladstone	Columbus	\$2,575,000
State & Union	Alliance	\$2,517,620
Gallia Street	Portsmouth	\$2,500,000
Virginia Avenue	Parma	\$2,441,361
Georgia & 15th	Sebring	\$2,426,950
Beechbank	Whitehall	\$2,420,000
Lucas	Lucas	\$2,185,650
Kenton "A"	Springfield	\$2,037,500
Euclid Avenue	Columbus	\$1,982,500
Northwest Blvd	Upper Arlington	\$1,952,500
E. Fulton 1	Columbus	\$1,952,150
Deming	Columbus	\$1,936,000
Richardson	Columbus	\$1,887,200
Cline	Columbus	\$1,830,000
Market Street	Tiffin	\$1,755,500
Tracey Road	Toledo	\$1,749,000
Upton & Dorr	Toledo	\$1,722,840
Boyce	Springfield	\$1,615,100
Kenton "B"	Springfield	\$1,577,500
Mt Carmel	Columbus	\$1,571,000
7th Street	Findlay	\$1,508,000
Martin	Columbus	\$1,435,400
Linden Street	Steubenville	\$1,428,843
McConnelsville LP	McConnelsville	\$1,382,000
Watt Street	Circleville	\$1,375,000
Richardson	Negley	\$1,360,418
1st St	Mansfield	\$1,359,500
Hamilton	Columbus	\$1,334,963
Airline	Toledo	\$1,309,410
Jefferson Avenue	Cambridge	\$1,308,000
Holmes	Toledo	\$1,248,400
Carrollton 2nd Street NE -	Carrollton	\$1,247,930
N. 5th Street	Columbus	\$1,175,000
7th & 8th Street MP	Chillicothe	\$1,155,000
Union	Ashland	\$1,141,250
Bullitt Park	Bexley	\$948,500

Prospect	Marion	\$888,200
Albany	Albany	\$887,219
Pine	Zanesville	\$612,489
Reg. Station	Salineville	\$585,399
Rudolph Phase 2	Rudolph	\$580,500
Inchcliff	Upper Arlington	\$561,500
Linden Street	Port Clinton	\$552,500
W Second Street	Salem	\$543,602
Lexington	Springfield	\$521,400
Ohio Ave 10"	Columbus	\$514,800
S. Mahoning Avenue HP	Alliance	\$507,000
Northwood	Columbus	\$503,916
Hoppes	Springfield	\$484,000
Parkwood	Toledo	\$443,990
Oakwood Ave 16"	Columbus	\$347,100
Dogwood Ridge	Wheelersburg	\$334,114
N. Main Street	Spencer	\$287,500
Berdan	Toledo	\$212,400

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Additional Priority Pipe projects will be constructed throughout the year. Many of these projects have either not yet been identified or involve third party coordination the schedules for which cannot be relied upon at this time. These projects will address existing hazards and/or eliminate risky pipe in conjunction with public works projects.

**Q. Please describe Columbia's process for determining the resources to be used in conjunction with the AMRP projects.**

**A.** The majority of all Columbia's capital work is performed by contractors under "blanket" contracts. Columbia extended and expanded the scope of our previously bid "blanket" construction contracts through December 31, 2015. This approach allows Columbia to maintain highly skilled contract resources and encourages these contractors to expand their businesses in Ohio. Local Columbia employees may perform work on some smaller projects when they are available. Columbia evaluates each project on a variety of criteria to determine who will perform the work.

**Q. What percentage of contractors working on AMRP projects in 2012 consisted of Ohio labor?**

**A.** As part of the Stipulation in Case No. 08-72-GA-AIR, et al., approved by the Commission on December 3, 2008, Columbia agreed to encourage its AMRP contractors to use their best efforts to retain Ohio labor to perform AMRP re-

- 1           lated services. In the Joint Stipulation and Recommendation in Case No. 09-  
2           0006-GA-UNC, filed on June 2, 2009, and approved by the Commission on  
3           June 24, 2009, Columbia agreed to continue to encourage its AMRP contrac-  
4           tors to use Ohio labor, and to report on Ohio labor participation in the  
5           AMRP program. Columbia has added language to its bid packages stating a  
6           preference that Ohio labor be used whenever possible as long as the price  
7           and quality of work is not negatively impacted. For 2012, 80% of contractor  
8           labor workforce on AMRP projects was from Ohio.  
9
- 10       **Q.    Do contractors typically replace Columbia's hazardous customer service**  
11       **lines?**
- 12       A.    Contractors do replace some hazardous service lines in a few locations, but  
13       the majority of hazardous service lines are replaced by local Columbia em-  
14       ployees.  
15
- 16       **Q.    Were there any O&M savings in 2012 associated with the replacement of**  
17       **priority pipe?**
- 18       A.    Using the methodology agreed to in the Stipulation and Order in Case No.  
19       09-1036-GA-RDR, there was an O&M savings of approximately \$384,866 in  
20       2012 associated with the replacement of priority pipe. The O&M savings in-  
21       cluded in the application are further explained in the testimony of Columbia  
22       witness Anderson.  
23
- 24       **Q.    Did the various components included in this filing produce any other sig-**  
25       **nificant benefits for customers in 2012?**
- 26       A.    Yes. Customer safety has been improved significantly due to the replace-  
27       ment of more than 7,997 hazardous service lines. With the completion of 626  
28       projects and the retirement of 970,670 feet of Priority Pipe, Columbia was  
29       able to eliminate the chance of water entering the lines and freezing meters  
30       off in the winter. In addition, Columbia was able to retire distribution mains  
31       where it has habitually had to go in and dig up to repair the mains.  
32
- 33       **Q.    Does this complete your Prepared Direct Testimony?**
- 34       A.    Yes, it does.

**CERTIFICATE OF SERVICE**

I hereby certify that a copy of the foregoing Prepared Direct Testimony of Eric T. Belle was served upon all parties of record by electronic mail this 28<sup>th</sup> day of February 2013.

/s/ Stephen B. Seiple  
Stephen B. Seiple  
Attorney for  
**COLUMBIA GAS OF OHIO, INC.**

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FILE

Columbia Exhibit No.

BEFORE  
THE PUBLIC UTILITIES COMMISSION OF OHIO

In the Matter of the Application of Co- )  
lumbia Gas of the Annual Application )  
of Columbia Gas of Ohio, Inc. for an ) Case No. 11-5803-GA-RDR  
Adjustment to Rider IRP and Rider  
DSM Rates

PREPARED DIRECT TESTIMONY OF  
ERIC BELLE  
ON BEHALF OF COLUMBIA GAS OF OHIO, INC.

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COLUMBIA GAS OF OHIO, INC.

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February 28, 2012

Attorneys for  
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Technician Am Date Processed 2/28/12

**PREPARED DIRECT TESTIMONY OF ERIC BELLE**

1 **Q. Please state your name and business address.**

2 A. My name is Eric T. Belle and my business address is 200 Civic Center  
3 Drive, Columbus, Ohio 43215.  
4

5 **Q. By who are you employed?**

6 A. I am employed by Columbia Gas of Ohio, Inc. ("Columbia"). My current  
7 title is Manager, Field Engineering.  
8

9 **Q. Please summarize your educational background and experience.**

10 A. I have a Bachelor of Science degree in Chemical Engineering from Syra-  
11 cuse University, Syracuse, New York and a Master's degree in Business  
12 Administration from Tiffin University, Tiffin, Ohio. I was originally em-  
13 ployed by Columbia as an Operations Engineering Trainee in 1995, where  
14 I gained a broad understanding of the natural gas distribution industry. In  
15 1997, I accepted a position as an Operations Engineer. I was responsible  
16 for planning and designing natural gas distribution systems. In 2006, I  
17 was promoted to Field Engineering Leader where I was responsible for  
18 providing guidance, support, and direction to Columbia's Field Engineer-  
19 ing department in northwest Ohio. In 2009, I was promoted to my current  
20 position of Manager, Field Engineering for Columbia.  
21

22 **Q. What are your responsibilities as Manager, Field Engineering?**

23 A. As Manager, Field Engineering, my principal responsibilities include  
24 overseeing the identification, planning, and design of virtually all capital  
25 work for Columbia's gas distribution system. I am also responsible for the  
26 development and monitoring of Columbia's capital budget.  
27

28 **Q. Have you previously testified before this Commission?**

29 A. Yes. I previously testified in Case No. 10-2353-GA-RDR.  
30

31 **Q. What is the purpose of your testimony?**

32 A. The purpose of my testimony is to explain the management, engineering,  
33 and construction practices of Columbia as they relate to the various compo-  
34 nents of Rider IRP, included in this filing, for the 2011 calendar year. I will  
35 also be discussing Columbia's performance with respect to its accelerated  
36 main replacement program and riser program.  
37

38 **Q. Please summarize Rider IRP and its components included in this filing.**

1 A. Rider IRP is an infrastructure tracker which captures cumulative plant in-  
2 vestment over a specified period of time and provides for a return on and  
3 the return of all program costs. The program components that make up Co-  
4 lumbia's IRP are: (1) the Accelerated Main Replacement Program  
5 ("AMRP"); (2) the riser replacement program and the replacement of haz-  
6 ardous service lines; and (3) the AMRD program.

7  
8 **Q. Please describe the AMRP, riser replacement and replacement of hazard-  
9 ous service line programs.**

10 A. Columbia's AMRP targets certain types of main for replacement over the  
11 course of 25 years. The types of gas main included in the AMRP are unpro-  
12 tected bare steel, unprotected coated steel, wrought iron, and cast iron. The-  
13 se types of main ("Priority Pipe" or "Priority Main") typically have a greater  
14 probability to leak due to their material type, protection, age, and other  
15 characteristics. Also included in the AMRP is the replacement of all metallic  
16 service lines and associated appurtenances.

17  
18 Columbia's riser replacement program was implemented to replace all of its  
19 Design-A risers that are prone to failure if not properly installed; Columbia  
20 has identified approximately 320,000 that need to be replaced. The program  
21 was established to orderly and systematically replace these risers over the  
22 period of approximately three years. Along with the risers, Columbia also  
23 has responsibility of all maintenance, repair, and replacement of customer-  
24 owned service lines that have been determined by Columbia to present an  
25 existing or probable hazard to persons or property.

26  
27 **Q. Please summarize the AMRP and riser/hazardous service line perfor-  
28 mance portions of Rider IRP for 2011.**

29 A. For the 2011 AMRP, Columbia completed 446 projects associated with the  
30 retirement of Priority Pipe for a total cost of approximately \$107.5 million.  
31 The total footage replaced for each type of main is as follows:

32 Steel – 1,080,163 feet

33 Iron – 62,667 feet

34 Plastic – 205,955 feet

35

36 Also, in 2011, Columbia replaced 23,749 risers for a total cost of approxi-  
37 mately \$11.9 million. Finally, during 2011, Columbia replaced 8,577 hazard-  
38 ous customer service lines for a total cost of approximately \$24.9 million.

39

- 1 Q. Why did Columbia retire plastic main in conjunction with this replace-  
2 ment program?
- 3 A. Prior to Columbia's implementation of its AMRP, as Priority Pipe has failed  
4 or leaked, Columbia has replaced small sections with plastic to eliminate the  
5 hazard. These typically short sections of plastic main are scattered through-  
6 out systems consisting primarily of Priority Pipe. As Columbia designs an  
7 infrastructure replacement project and reviews the plastic sections of pipe  
8 located within the project boundaries, Columbia evaluates whether it makes  
9 financial sense to either tie into the existing plastic main or bypass and in-  
10 stall all new main. Sometimes Columbia has no choice in abandoning the  
11 plastic main due to the new main being relocated to a different location.  
12
- 13 Q. Has Columbia included the costs to replace the pieces of plastic main in  
14 this filing?
- 15 A. Yes. Columbia has included the costs of retiring these portions of plastic  
16 main in conjunction with its infrastructure replacement projects in this  
17 tracker.  
18
- 19 Q. How did Columbia determine which mains were to be replaced as part of  
20 its AMRP in 2011?
- 21 A. In 2011, Columbia utilized Optimain DST<sup>TM</sup> to help evaluate and rank pipe  
22 segments system-wide against a range of environmental conditions (e.g.  
23 population density, building class, surface cover type, etc.), risk factors (pipe  
24 segment leak history, pipe condition, pitting depth, depth of cover, etc.) and  
25 economic factors. In general, we identified, ranked and selected projects  
26 based on the level of relative risk score that would be removed from the sys-  
27 tem per every thousand feet of pipe that would be abandoned with the pro-  
28 ject. We also considered the level of relative risk score that would be re-  
29 moved from the system per every \$100,000 dollars of capital spent. This  
30 evaluation and risk ranking of pipe segments was then reviewed by the en-  
31 gineering and operations departments to assess whether that data was con-  
32 sistent with what has been observed in the field. In addition, Columbia  
33 worked collaboratively with local and state governments in areas where  
34 public improvement work was to occur. Columbia reviewed plans and iden-  
35 tified areas of Priority Pipe within the scope of pending public improvement  
36 work. Columbia used both sets of information listed above to help deter-  
37 mine which sections of main were the best candidates to select for replace-  
38 ment.  
39

1 Q. What are Columbia's construction plans for 2012?

2 A. Columbia expects to spend approximately \$158.1 million on the various  
3 components of Rider IRP in 2012. Columbia currently estimates it will spend  
4 approximately \$21 million on hazardous service lines, \$24.2 million on  
5 AMRD, and \$112.9 million on replacing infrastructure. A current listing of  
6 Columbia's largest planned infrastructure projects are shown below.  
7

Location (Street and City)	Expected Re-leased Date to Construc-tion	Expected in Service Date	Estimated Total Cost
Ackerman Road, Colum-bus	TBD	TBD	\$ 10,500,000
Wolfe Road, Bay Village	11/14/11	TBD	\$ 4,378,400
Northwood Avenue, Co-lumbus	12/01/11	TBD	\$ 4,253,000
Olentangy Street, Co-lumbus	01/30/12	TBD	\$ 4,248,000
W. Second Street, Salem	11/01/11	TBD	\$ 3,986,100
Yates, Toledo	12/31/11	TBD	\$ 3,984,670
Dryden, Toledo	03/01/12	TBD	\$ 3,386,200
Virginia Avenue, Parma	12/01/11	TBD	\$ 3,338,250
Strasburg North, Stras-burg	12/30/11	TBD	\$ 3,271,400
Eisenhower Road, Co-lumbus	12/01/11	TBD	\$ 3,215,000
Oaklawn Street, Colum-bus	12/30/11	TBD	\$ 3,213,560
Theota/Bradley, Parma	11/01/11	TBD	\$ 3,000,000
Mingo Junction	02/01/12	TBD	\$ 2,947,000
Steubenville	01/20/12	TBD	\$ 2,812,500
South 6th Street, Coshoc-ton	02/17/12	TBD	\$ 2,775,400
Westminster, Parma	11/14/11	TBD	\$ 2,751,000
Holmes, Toledo	03/01/12	TBD	\$ 2,658,010
Rogers & Woodville, To-ledo	12/16/11	TBD	\$ 2,582,650
Gnadenhutten	12/23/11	TBD	\$ 2,446,400

Salineville	01/31/12	TBD	\$ 2,373,200
Dogwood Ridge, Wheelersburg	12/01/11	TBD	\$ 2,185,000
Parkwood, Toledo	03/01/12	TBD	\$ 2,079,940
Cassilly Street, Springfield	12/01/11	TBD	\$ 2,078,025
Pine Street, Zanesville	01/27/12	TBD	\$ 2,045,400
Bexley Park Road, Bexley	12/01/11	TBD	\$ 2,033,200
South Ogden Phase III, Toledo	12/16/11	TBD	\$ 1,935,480
South Ogden Phase II, Toledo	12/16/11	TBD	\$ 1,904,895
Fremont Phase 2, Fremont	12/31/11	TBD	\$ 1,900,000
S Richardson Avenue, Columbus	12/01/11	TBD	\$ 1,887,200
W. Ely & Garfield, Alliance	11/01/11	TBD	\$ 1,844,690
Tracy Road, Toledo	TBD	TBD	\$ 1,809,950
Hamilton Avenue, Columbus	12/01/11	TBD	\$ 1,721,000
Lexington Avenue, Springfield	12/01/11	TBD	\$ 1,715,400
Boyce Street, Urbana	12/01/11	TBD	\$ 1,615,100
Luckey	12/31/11	TBD	\$ 1,597,200
7th Street, Findlay	01/13/12	TBD	\$ 1,508,000
Grace Street, Columbus	12/01/11	TBD	\$ 1,350,000
Airline & Decatur, Toledo	12/16/11	TBD	\$ 1,309,410
Hoppes Avenue, Springfield	12/01/11	TBD	\$ 1,260,000
McKitterick, Jackson	12/01/11	TBD	\$ 1,156,000
Malvern IP, Malvern	02/01/12	TBD	\$ 1,061,700
Rankin Avenue, Columbus	12/01/11	TBD	\$ 1,004,935
Main & Prospect, Marion	01/13/12	TBD	\$ 888,200
N. 7th Street, Ironton	12/31/11	TBD	\$ 795,000
E 4th Street, Chillicothe	12/01/11	TBD	\$ 778,000

Rudolph Phase 2, Rudolph	01/20/12	TBD	\$ 580,500
Banks Street, Mount Gil-ead	03/01/12	TBD	\$ 559,000
Linden Street, Port Clinton	12/31/11	TBD	\$ 552,500
Third Street, Mansfield	12/01/11	TBD	\$ 552,000
Albany	01/12/12	TBD	\$ 547,000
Lusch Road, Marion	01/27/12	TBD	\$ 486,100
Kasson Street, Johnstown	12/01/11	TBD	\$ 389,000
Colby Street, Crestline	01/13/12	TBD	\$ 305,000
Berdan, Toledo	01/20/12	TBD	\$ 212,400

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Additional Priority Pipe projects will be constructed throughout the year. Many of these projects have either not yet been identified or involve third party coordination the schedules for which cannot be relied upon at this time. These projects will address existing hazards and/or eliminate risky pipe in conjunction with public works projects.

**Q. Please describe Columbia’s process for determining the resources to be used in conjunction with the AMRP projects.**

**A.** The majority of all Columbia’s capital work is performed by contractors under “blanket” contracts. Columbia extended and expanded the scope of our previously bid “blanket” construction contracts through December 31, 2015. This approach allows Columbia to maintain highly skilled contract resources and encourages these contractors to expand their businesses in Ohio. Local Columbia employees may perform work on some smaller projects when they are available. Columbia evaluates each project on a variety of criteria to determine who will perform the work.

**Q. What percentage of contractors working on AMRP projects in 2011 consisted of Ohio labor?**

**A.** As part of the Stipulation in Case No. 08-72-GA-AIR, et al., approved by the Commission on December 3, 2008, Columbia agreed to encourage its AMRP contractors to use their best efforts to retain Ohio labor to perform AMRP related services. In the Joint Stipulation and Recommendation in Case No. 09-0006-GA-UNC, filed on June 2, 2009, and approved by the Commission on June 24, 2009, Columbia agreed to continue to encourage its AMRP contractors to use Ohio labor, and to report on Ohio labor participation in the

1 AMRP program. Columbia has added language to its bid packages stating a  
2 preference that Ohio labor be used whenever possible as long as the price  
3 and quality of work is not negatively impacted. For 2011, 83% of contractor  
4 labor workforce on AMRP projects was from Ohio.  
5

6 **Q. Do contractors typically replace Columbia's hazardous customer service**  
7 **lines?**

8 A. Contractors do replace some hazardous service lines in a few locations, but  
9 the majority of hazardous service lines are replaced by local Columbia em-  
10 ployees.  
11

12 **Q. Were there any O&M savings in 2011 associated with the replacement of**  
13 **priority pipe?**

14 A. Using the methodology agreed to in the Stipulation and Order in Case No.  
15 09-1036-GA-RDR, there was an O&M savings of approximately \$164,854 in  
16 2011 associated with the replacement of priority pipe. The savings are fur-  
17 ther explained in the testimony of Columbia witness Martin.  
18

19 **Q. Did the various components included in this filing produce any other sig-**  
20 **nificant benefits for customers in 2011?**

21 A. Yes. Customer safety has been improved significantly due to the replace-  
22 ment of 23,749 prone to fail risers and more than 8,577 hazardous service  
23 lines. With the completion of 446 projects and the retirement of 1,142,830 feet  
24 of Priority Pipe, Columbia was able to eliminate the chance of water enter-  
25 ing the lines and freezing meters off in the winter. In addition, Columbia  
26 was able to retire distribution mains where it has habitually had to go in and  
27 dig up to repair the mains.  
28

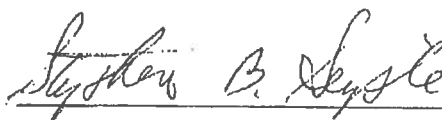
29 **Q. Does this complete your Prepared Direct Testimony?**

30 A. Yes, it does.



## CERTIFICATE OF SERVICE

I hereby certify that a copy of the foregoing Prepared Direct Testimony of Eric Belle was served upon all parties of record by electronic mail or regular U.S. Mail this 28<sup>th</sup> day of February 2012.



Stephen B. Seiple  
Attorney for  
COLUMBIA GAS OF OHIO, INC.

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BEFORE  
THE PUBLIC UTILITIES COMMISSION OF OHIO

In the Matter of the Application of Co- )  
lumbia Gas of Ohio, Inc. for Approval ) Case No. 11-5515-GA-ALT  
of an Alternative Form of Regulation. )

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PREPARED DIRECT TESTIMONY OF  
ERIC T. BELLE  
ON BEHALF OF COLUMBIA GAS OF OHIO, INC.

---

COLUMBIA GAS OF OHIO, INC.

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Attorneys for  
COLUMBIA GAS OF OHIO, INC.

May 8, 2012

This is to certify that the images appearing are an accurate and complete reproduction of a case file document delivered in the regular course of business.  
Technician AS Date Processed MAY 08 2012

**PREPARED DIRECT TESTIMONY OF ERIC T. BELLE**

1 **Q. Please state your name and business address.**

2 A. My name is Eric T. Belle and my business address is 200 Civic Center  
3 Drive, Columbus, Ohio 43215.  
4

5 **Q. By who are you employed?**

6 A. I am employed by Columbia Gas of Ohio, Inc. ("Columbia"). My current  
7 title is Manager, Field Engineering.  
8

9 **Q. Please summarize your educational background and experience.**

10 A. I have a Bachelor of Science degree in Chemical Engineering from Syra-  
11 cuse University, Syracuse, New York and a Master's degree in Business  
12 Administration from Tiffin University, Tiffin, Ohio. I was originally em-  
13 ployed by Columbia as an Operations Engineering Trainee in 1995 where I  
14 gained a broad understanding of the natural gas distribution industry. In  
15 1997, I accepted a position as an Operations Engineer. I was responsible  
16 for planning and designing natural gas distribution systems. In 2006, I  
17 was promoted to Field Engineering Leader where I was responsible for  
18 providing guidance, support, and direction to Columbia's Field Engineer-  
19 ing department in northwest Ohio. In 2009, I was promoted to my current  
20 position of Manager, Field Engineering for Columbia.  
21

22 **Q. What are your responsibilities as Manager, Field Engineering?**

23 A. As Manager, Field Engineering, my principal responsibilities include  
24 overseeing the identification, planning, and design of virtually all capital  
25 work for Columbia's gas distribution system. I am also responsible for the  
26 development and monitoring of Columbia's capital budget.  
27

28 **Q. Have you previously testified before this Commission?**

29 A. Yes. I previously testified in Case No. 10-2353-GA-RDR.  
30

31 **Q. What is the purpose of your testimony?**

32 A. The purpose of my testimony is to provide a description of Columbia's  
33 Accelerated Main Replacement Program ("AMRP") and information that  
34 supports the extension of the AMRP portion of Columbia's current Infra-  
35 structure Replacement Program ("IRP").  
36

37 **Q. Please describe the scope of the AMRP programs.**

1 A. Columbia's AMRP targets certain types of main for replacement over the  
2 course of 25 years. The size and scope of main replacement projects com-  
3 pleted each year will vary from replacing small individual segments of  
4 main to replacing extremely large segments of pipe across a relatively  
5 wide geographic area. The types of gas main explicitly included in the  
6 AMRP as initially approved are bare steel, unprotected coated steel,  
7 wrought iron, and cast iron. These types of main ("Priority Pipe" or "Pri-  
8 ority Main") typically have a greater probability to leak due to their mate-  
9 rial type, protection, age, and other characteristics. Also explicitly includ-  
10 ed in the AMRP is the replacement of all metallic service lines and associ-  
11 ated appurtenances.  
12

13 **Q. Please clarify the progress that Columbia has made in its AMRP pro-**  
14 **gram to date and the expected outcomes during the first five-year peri-**  
15 **od.**

16 A. Columbia has made progress during the first five-year period of the  
17 AMRP program. The increased capital expenditure has enabled Columbia  
18 to effectively accelerate the replacement of sections of its aging infrastruc-  
19 ture and specifically target some of the worst segments for replacement. In  
20 its initial IRP application, Columbia estimated that after the initial ramp  
21 up year of 2008, that it would spend approximately \$73 million and re-  
22 place approximately 160 miles of priority pipe annually. At the end of the  
23 first five years, Columbia estimated that it would spend approximately  
24 \$329 million and replace 730 miles of Priority Pipe. Through the first four  
25 years of the AMRP program, Columbia spent approximately \$210 million  
26 and has replaced approximately 459 miles of Priority Pipe. Current projec-  
27 tions suggest that by the end 2012, or year five of the AMRP program, Co-  
28 lumbia expects to spend approximately \$332 million and replace approx-  
29 imately 700 miles of Priority Pipe. These figures would result in Columbia  
30 spending over 100% of the estimated dollars for the first five years and re-  
31 placing approximately 96% of our original estimate of Priority Pipe. The  
32 slight difference in percentage of capital spent and percentage of Priority  
33 Pipe replaced has been attributed in part to the fact that some of the worst  
34 segments of Priority Pipe that Columbia has replaced were located in  
35 densely populated areas where a higher number of services per mile of  
36 pipe were encountered. Increases in labor, material, and paving restora-  
37 tion costs were also contributing factors that impacted the amount of pri-  
38 ority pipe that Columbia was able to retire with the capital dedicated to-  
39 wards it AMRP. Columbia also focused some of its AMRP capital on re-  
40 placing both smaller segments of Priority Pipe and large diameter seg-

1           ments that posed a risk to system reliability and public safety. Projects  
2           that were small in scope or that involved large diameter pipe often result-  
3           ed in higher overall project costs per feet of Priority Pipe retired. Collec-  
4           tively, these factors resulted in Columbia experiencing a slightly higher  
5           overall cost per mile of Priority Pipe replaced than the average on which  
6           our original estimates were based. Overall, Columbia is confident that the  
7           first five years of the AMRP program has been effective and now it is rea-  
8           sonable and necessary to extend the program for the next five years. Co-  
9           lumbia has accelerated the replacement of its aging infrastructure and has  
10          targeted some of the worst sections of the system for replacement. Over  
11          the next five years, Columbia intends to continue in this fashion and plans  
12          on spending over \$607 million on the AMRP program and will replace  
13          over 1,000 miles of Priority Pipe.

14  
15       **Q.    How does Columbia determine which mains will be replaced as part of its**  
16       **AMRP program?**

17       A.    Columbia utilizes Optimain DS™ to help evaluate and rank pipe segments  
18       system-wide against a range of environmental conditions (e.g. population  
19       density, building class, surface cover type, etc.), and risk factors (pipe seg-  
20       ment leak history, pipe condition, pitting depth, depth of cover, etc.). Pro-  
21       jects identified and selected from Optimain DS™ are not prioritized based  
22       on an expected amount of immediate O&M savings. Instead, we generally  
23       identify, rank and select the worst projects based on the level of relative risk  
24       score that would be removed from the system per every thousand feet of  
25       Priority Pipe that would be abandoned with the project. Columbia also uti-  
26       lizes operational and engineering knowledge to monitor and replace other  
27       critical segments the characteristics of which would pose additional risk if  
28       replacement is delayed due to a lower relative risk score. Additionally, Co-  
29       lumbia works collaboratively with local and state governments in areas to  
30       replace Priority Pipe where public improvement work will occur.

31  
32       **Q.    Why is Columbia requesting an extension of its current AMRP?**

33       A.    The continuation of Columbia's current AMRP is essential and necessary  
34       to maintain the safe and reliable delivery of natural gas throughout our  
35       service territory. Columbia's initial intent remains unchanged, which is to  
36       accelerate the replacement of our Priority Main and to provide safe and  
37       reliable service to our customers. This program allows Columbia to con-  
38       tinue to implement its systematic replacement strategy which targets the  
39       identification, selection, and replacement of Priority Pipe in large geo-  
40       graphic areas with high relative risk. The extension of the current AMRP

1 also enables Columbia to coordinate the replacement of its Priority Pipe in  
2 advance of state or municipal construction projects, which eliminates long  
3 term complaints over the intrusive maintenance efforts that Columbia  
4 would have to take, in order to repair leaks and maintain an aging natural  
5 gas system.

6  
7 The continuation of Columbia's current AMRP is also necessary to main-  
8 tain access to highly skilled contract construction resources. In 2011, Co-  
9 lumbia implemented its contractor acquisition strategy which focused on  
10 building longer term relationships with current blanket contractors. Blan-  
11 ket contractors have generally struggled to expand their workforce to  
12 meet Columbia's needs due to a relatively small labor market of qualified  
13 individuals, start-up or mobilization challenges, and increased demand  
14 for the same contract resources in this region. Columbia addressed these  
15 challenges by extending blanket contracts through December 31, 2015, and  
16 provided a high level summary of its intentions to continue to execute on  
17 the accelerated main replacement program. The extension of these blanket  
18 contracts and the continuation of Columbia's current AMRP will encour-  
19 age contractors to expand their businesses in Ohio and hire the needed la-  
20 bor resources that will play a vital role in the construction of Columbia's  
21 projects. This will result in a safe, reliable, and modern natural gas system  
22 that is capable of serving the needs of Columbia's residential, commercial,  
23 and industrial customers.

24  
25 **Q. In executing the first five years of its AMRP has Columbia encountered**  
26 **any problems with the definition of the scope of the AMRP?**

27 **A.** Yes, as the Manager of Field Engineering, part of my job is to ensure that  
28 Priority Pipe is replaced in the most cost effective and efficient manner  
29 possible. Columbia has encountered numerous situations where inter-  
30 spersed sections of non-priority pipe exist within the project boundary of  
31 the Priority Pipe we are attempting to replace. In the majority of these sit-  
32 uations, it is more cost effective to replace these interspersed sections of  
33 non-priority pipe along with the replacement of the Priority Pipe, than it  
34 would be to try to reuse this non-priority pipe. In an effort to uphold the  
35 important consideration of operating in as cost effective manner as possi-  
36 ble, it is important to include this non-priority pipe within the scope of  
37 Columbia's AMRP program. As discussed in witness Creekmur's testi-  
38 mony, Columbia now seeks to make it explicit that the replacement of  
39 such interspersed pipe should be included within the scope of Columbia's  
40 AMRP.

1  
2 Columbia has also occasionally encountered situations where sections of  
3 first-generation plastic or ineffectively coated steel pipe exist in associa-  
4 tion with Priority Pipe replacement projects. Because of safety concerns  
5 associated with these kinds of pipe, the most prudent course of action is to  
6 replace these sections of pipe rather than attempt to re-use them. Colum-  
7 bia had assumed that this was implicit within the original scope of the IRP  
8 Program. In order to ensure safety and uphold the important considera-  
9 tion of operating in as efficient a manner as possible, it is important to ex-  
10 pressly include this non-priority pipe within the scope of Columbia's  
11 AMRP program. As discussed in Columbia witness Creekmur's testimo-  
12 ny, Columbia now seeks to make it explicit that the replacement of such  
13 associated pipe should be included within the scope of Columbia's  
14 AMRP.

15  
16 **Q. Are there any other clarifications of scope to the AMRP?**

17 **A.** Yes, due to a misinterpretation of numbers contained with Columbia's  
18 annual DOT report at the time that the AMRP was established, Columbia  
19 reported 52 miles of unprotected coated steel pipes in its system. This re-  
20 ported mileage actually consisted of protected coated steel pipes that re-  
21 quired mitigation to bring back up to acceptable cathodic protection read-  
22 ings. Starting in 2007, Columbia changed its approach by no longer report-  
23 ing protected coated pipes with readings outside of the cathodic protec-  
24 tion requirement as unprotected coated pipe in its annual DOT report.  
25 Since 2008, Columbia has replaced approximately 75 miles of unprotected  
26 coated steel pipes installed prior to 1955. Columbia has approximately 80  
27 miles of unprotected coated steel pipes installed prior to 1955 remaining  
28 in its system that will be retired over the course of the AMRP. Columbia is  
29 therefore clarifying the scope of the AMRP by including approximately  
30 155 miles of unprotected coated steel pipes in its AMRP.

31  
32 **Q. To what does the term "first-generation plastic pipe" refer?**

33 **A.** First generation plastic, also called Aldyl-A (a DuPont brand name), was  
34 one of the first plastic materials to be used widely in the natural gas dis-  
35 tribution industry as a substitute for steel piping systems. Columbia in-  
36 stalled first generation plastic throughout its Ohio service area from the  
37 1960s through the early 1980s. The use of plastic pipe has been accepted as  
38 a generally safe and economical alternative to pipe made of steel. Howev-  
39 er, in a special investigation report completed by the National Safety  
40 Board on April 23, 1998, it concluded that between the 1960's through the

1 early 1980's, the procedure used in the United States by manufacturers to  
2 rate the strength of this plastic pipe may have overrated the strength and  
3 resistance to brittle-like cracking. The investigation performed further  
4 clarified that such first-generation plastic pipe was susceptible to prema-  
5 ture brittle-like failures when subjected to stress intensification and as a  
6 result represented a potential safety hazard.  
7

8 Columbia continues to perform all routine monitoring and inspecting ac-  
9 tivities to ensure that the first-generation plastic pipe within our systems  
10 continue to operate safely. However, given the safety concerns that arise  
11 when this pipe is subjected to stress intensification, the most efficient  
12 course of action is for Columbia to replace first-generation pipe when it is  
13 encountered in association with an AMRP project. This will eliminate Co-  
14 lumbia's requirement to induce stress on first-generation plastic pipe dur-  
15 ing the standard squeeze-off operation performed to control or stop gas  
16 flow when preparing to reuse and reconnect existing first generation plas-  
17 tic pipe to newly installed plastic pipe. The only time Columbia will re-  
18 place first-generation plastic will be to avoid inducing stress on the pipe  
19 that is required to reuse the pipe. This is the most effective approach to  
20 mitigating the potential of premature brittle-like failures as well as the po-  
21 tential public safety hazards.  
22

23 **Q. To what does the term "ineffectively coated steel pipe" refer?**

24 **A.** Ineffectively coated steel pipe refers to coated steel pipe that may have in-  
25 adequate, field-applied coatings. Columbia continues to perform all rou-  
26 tine monitoring and inspecting activities to ensure that this type of coated  
27 steel pipe will continue to operate safely, however, Columbia has a long-  
28 term concern that field-applied coatings used primarily on steel pipe prior  
29 to 1955, and intermittently between 1955 to 1970, have or will become inef-  
30 fective over time. As this occurs, these coated steel lines demonstrate the  
31 leakage characteristics of our Priority Pipe, and in the interest of safety  
32 and reliability the best course of action is to replace sections of coated steel  
33 main installed prior to 1955 as they are encountered in association with an  
34 AMRP project. In cases where Columbia encounters sections of coated  
35 steel main installed between 1955 and 1970 that are associated with an  
36 AMRP project, Columbia proposes to have its corrosion department in-  
37 spect the pipeline coating for damage (e.g., scrapes, gouges), deterioration,  
38 or disbonding (e.g. cracking, blistering, chipping, flaking, or loose) and  
39 complete a field analysis to assess the cathodic protection current re-  
40 quirements of the pipe. To the extent that these analyses identify segments



1 of protected steel pipe that are ineffectively coated, Columbia proposes to  
2 replace these sections as they are encountered in association with an  
3 AMRP project. Columbia proposes to capture and incorporate the costs  
4 associated with this analysis in the AMRP project cost when such analysis  
5 identifies segments of coated steel pipeline as ineffectively coated. Co-  
6 lumbia will also track its findings with respect to sections of ineffectively  
7 coated steel mains that are replaced as part of an AMRP project so that  
8 such information can be reviewed as part of the annual IRP rider adjust-  
9 ment process. Columbia believes this represents the most effective, effi-  
10 cient, and economical method to ensure the continued safe and reliable  
11 delivery of natural gas to our customers.  
12

13 **Q. When you refer to non-priority pipe as being interspersed, what does**  
14 **that mean?**

15 A. Columbia's systematic replacement strategy often results in the replace-  
16 ment of its aging infrastructure across large geographic areas. Within the  
17 scope of these projects, Columbia may encounter shorter segments of non-  
18 priority pipe that were previously installed to correct an operational issue.  
19 When such pipe is encountered within the boundaries of an AMRP pro-  
20 ject, Columbia refers to that pipe as being interspersed with the Priority  
21 Pipe.  
22

23 **Q. Why does Columbia believe it is imperative to replace interspersed non-**  
24 **priority pipe as part of its AMRP?**

25 A. The locations of these interspersed, shorter sections of non-priority pipe  
26 are often located under alleys, streets, or other locations that make reusing  
27 these short sections impractical and economically inefficient. In some in-  
28 stances, Columbia will have two existing Priority Pipe mains on both sides  
29 of a road with interspersed sections of non-priority pipe also sporadically  
30 installed. Columbia generally plans on installing a single gas main on each  
31 road with an AMRP project rather than reusing scattered non-priority  
32 pipe sections on both sides of a road which is both impractical and ineffi-  
33 cient. Additionally, when interspersed sections of non-priority pipe are  
34 found in locations suitable to be reused; the cost to prepare, implement,  
35 and execute the necessary operational guidelines to safely reuse the pipe  
36 typically exceeds the cost to replace the section of non-priority pipe in  
37 question.  
38

39 **Q. Why is it more cost efficient to replace sections of interspersed non-**  
40 **priority pipe rather than to re-use it?**

1 A. I have completed a detailed analysis on the estimated costs associated  
2 with replacing or reusing short sections of plastic pipe, attached hereto as  
3 Attachment ETB-1. The analysis was focused on pipe sizes ranging from  
4 2-inch through 8-inch, which are the most frequent pipe sizes of plastic  
5 pipe encountered within the scope of a replacement project. The result of  
6 the analysis proved that, based on pipe size, Columbia would spend less  
7 to replace short sections of plastic pipe ranging from a distance as small as  
8 205 feet per interspersed section on 8-inch plastic pipe to as much as 435  
9 feet per interspersed section on 2-inch plastic pipe.

10

11 Reusing interspersed sections of non-priority pipe is a time consuming  
12 process that is also inconvenient to customers because it requires Colum-  
13 bia to generally disconnect and relight customers twice during an AMRP  
14 project. As a result, this leads to inefficiencies that it will extend the time-  
15 line needed to complete projects. Columbia's preference is to always oper-  
16 ate in an effective and economically efficient manner. Therefore, to date  
17 Columbia has replaced these interspersed sections of non-priority pipe  
18 that are found within the scope of an AMRP project. However, Columbia  
19 has not been allowed to recover its costs as part of the AMRP rider be-  
20 cause such costs were not explicitly listed in the original description of the  
21 AMRP. By granting Columbia the ability to recover the costs of replacing  
22 these interspersed sections of pipe as part of the AMRP, it will further en-  
23 courage Columbia to identify additional best practices that can lead to  
24 improved execution and efficiency of AMRP projects.

25

26 **Q. You also refer to non-priority pipe as being associated with an AMRP**  
27 **project. How would you define the term "associated with"?**

28 A. Columbia typically uses the term interspersed to refer to shorter segments  
29 of non-priority pipe for which Columbia has determined that it is more  
30 economic and efficient to replace rather than re-use. The term "associated  
31 with" has been used in the context of this filing to delineate sub-sets of  
32 non-priority pipe (first-generation plastic and ineffectively coated steel as  
33 described above) for which the replace/reuse decision includes a safety  
34 and reliability component as well as economics.

35

36 **Q. Why does Columbia believe that replacing sections of first-generation**  
37 **plastic and ineffectively coated steel pipe associated with AMRP pro-**  
38 **jects is a safer and more reliable alternative to re-using that pipe?**

39 A. As discussed previously in my testimony, first-generation plastic is subject  
40 to brittle like fractures when subjected to stress intensification such as is

1 encountered during the standard squeeze-off operation performed to control  
2 or stop gas flow when preparing to reuse and reconnect existing first  
3 generation plastic pipe to newly installed plastic pipe. By replacing this  
4 pipe when it is encountered during the course of an AMRP project, Columbia  
5 can avoid the risk that a fracture will occur, resulting in a critical  
6 leak that must then be dealt with. When these types of leaks do occur,  
7 they generally result in additional costs and delays in completion of the  
8 project.  
9

10 Also discussed previously in my testimony is Columbia's concern that  
11 ineffectively coated steel pipe currently does, or eventually will, demonstrate  
12 the same leakage characteristics of bare steel pipe. By replacing this  
13 pipe when it is encountered during the course of an AMRP project, Columbia  
14 effectively eliminates the safety and reliability concerns associated  
15 with leakage on these sections of pipe, and allows Columbia to avoid the  
16 costs and inconvenience to customers associated with the eventual repair  
17 or replacement of the pipe.  
18

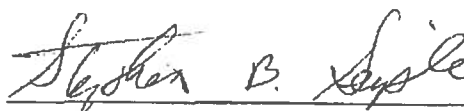
19 It should be noted that Columbia does not intend to target first-generation  
20 plastic and ineffectively coated steel pipe as part of the AMRP, only to  
21 replace it as necessary when it is encountered during the course of AMRP  
22 projects. Experience has shown that these situations are relatively rare and  
23 that Columbia anticipates that less than 5% of pipe replaced over the  
24 course of each year will fall into this category.  
25

26 **Q. Does this complete your Prepared Direct Testimony?**

27 **A. Yes, it does.**

CERTIFICATE OF SERVICE

I hereby certify that a copy of the foregoing Prepared Direct Testimony of Eric Belle was served upon all parties of record by regular U. S. mail this 8<sup>th</sup> day of May, 2012.



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**ATTACHMENT ETB-1**

**ATTACHMENT ETB-1  
REPLACE/REUSE BREAK EVEN FOOTAGES**

<b>Size of Pipe to be Reused (Cost to Reuse Applies to Any Length of Pipe)</b>	<b>Estimated Cost to Reuse Pipe</b>	<b>Pg #</b>	<b>Break Even Bypass Footage</b>	<b>Pg #</b>
Incremental 2" Uprate	\$19,604	2	435	3
Incremental 4" Uprate	\$18,155	4	365	5
Incremental 6" Uprate	\$16,706	6	250	7
Incremental 8" Uprate	\$14,647	8	205	9

**Incremental 2" Uprate**

Short Description	Long Description	Quantity	UOM	Unit Cost	Total Cost	Comments
Bore	11 - 200 ;020 inch ;P ;DIRECTIONAL BORING,W/O CASING	0	LF	12.05	\$0.00	Pipe not replaced
Replace Service	21 - 150 Replace service with main	4	LF	714.77	\$2,859.08	Assumes half are replaced
Tie-over	25 - 005 inch P SVC,TIE-OVER,PE EA	0	EA	383.43	\$0.00	No tie over on uprated pipe
Backfill	36 - 030 inch STONE DUST,CONTR PRVD TN	20	TN	29.51	\$ 590.20	Assumes backfill required to set up temporary station Currently cost is an assumption based on one contract; however, in 2012 this item will be included in each contract. Assumes main is located between curb and sidewalk and that insufficient room exists to tie-in the temporary station without busting sidewalk.
Hard surface repair	46 - 040 inch 4" CONCRETE SIDEWALK 0-200 S SF	16	SF	8.04	\$ 128.64	
Change Regulator	Residential Meter Change Regulator	7	EA	56.32	\$ 394.24	
Move Meter	76 - 015 Move Out Residential Meter	3	EA	351.65	\$ 1,054.95	Assumes half are already outside
Relight	77 - 010 Relight	7	EA	84.09	\$ 588.63	Relight after meter/regulator work Contract labor to transport temp station to and from site, site prep, and installation of station and inlet and outlet piping.
T & E	98 - 400 inch MN/SVCS-4-MAN CREW HR	16	HR	270.55	\$ 4,328.80	
Tie-in	53 - 200 020 inch HVTT,2" OUTLET,2-12" MN EA	2	EA	369	\$ 738.00	Tie-ins for temp station Even though pipe was previously installed, no guarantee it is not located in sewer.
Sewer Camera	98 - 250 inch ELECTR/VIDEOSWR LOCATE HR	16	HR	221.67	\$3,546.72	
Labor	M&R Technician	8	HR	39.12	\$ 312.96	Purge and place station in operation
Labor	Construction Coordinator	16	HR	39.12	\$ 625.92	
Labor	Leakage Inspector (Uprate walks)	8	HR	39.12	\$ 312.96	Leakage survey - mains and services
Labor	Leakage Inspector (pre walk)	2	HR	39.12	\$ 78.24	Leakage survey - mains and services
Labor	Leakage Inspector (post walk)	2	HR	39.12	\$ 78.24	Leakage survey - mains and services
Vehicle Expense	M&R Truck	8	HR	14.1	\$ 112.80	
Vehicle Expense	Construction Coordinator Truck	16	HR	14.1	\$ 225.60	
Vehicle Expense	Leakage Inspector Truck	12	HR	14.1	\$ 169.20	
Misc Expense	Temporary Construction Easement/Damages	1	EA	1000	\$ 1,000.00	Acquire safe site for temporary station.
Materials	2" Plastic Pipe for station inlet/outlet	50	FT	0.781	\$ 39.05	Assumes 25 feet of temporary station piping.
Materials	HVT - 43-20-2303	2	EA	48.79	\$ 97.58	Assume 2" HVT
Overheads	Construction Overheads			16.10%	\$ 2,322.06	
					<u>\$ 19,603.87</u>	

**New 2" Plastic Replacement Main**

Short Description Long Description

Short Description	Long Description	Quantity	UOM	Unit Cost	Total Cost	Comments
Bore	11 - 200 ;020 inch ;P ;DIRECTIONAL BORING,W/O CASING ;LF	435	LF	12.05	\$5,241.75	Iterate the footage here and the two items below to match the incremental uprate cost.
Replace Service	21 - 150 Replace service with main	4	LF	714.77	\$2,859.08	
Tie-over	25 - 005 inch P SVC,TIE-OVER,PE EA	3	EA	383.43	\$1,150.29	COH Customer Density is 1 customer per 76 feet of distribution pipe
Backfill	36 - 030 inch STONE DUST,CONTR PRVD TN	0	TN	29.51	\$ -	Assumes between curb and sidewalk.
Hard surface repair	46 - 040 inch 4" CONCRETE SIDEWALK 0-200 S SF	0	SF	8.04	\$ -	Assumes replacement main is between curb and sidewalk.
Tie-in	53 - 200 020 inch HVTT,2" OUTLET,2-12" MN EA	0	EA	369	\$ -	No tie in required if replacing this pipe section
Change Regulator	75 - 030 Residential Meter Change Regulator	7	EA	56.32	\$ 394.24	
Move Meter	76 - 015 Move Out Residential Meter	3	EA	351.65	\$1,054.95	Assumed that half the meters were already outside.
Relight	77 - 010 Relight	7	EA	84.09	\$ 588.63	Relight after meter regulator work.
Sewer Camera	98 - 250 inch ELECTR/VIDEOSWR LOCATE HR	16	HR	221.67	\$3,546.72	Could have non customers requiring locates.
Labor	Construction Coordinator	32	HR	39.12	\$1,251.84	Includes Labor Overheads
Vehicle	Truck Expense	32	HR	14.1	\$451.20	
Material	Pipe - 09-45-079	435	FT	0.78	\$339.30	
Overheads	Overheads	16.10%	%		\$2,717.36	Source: November 2011 Report
					<u>\$19,595.36</u>	



**Incremental 4" Uprate**

Short Description	Long Description	Quantity	UOM	Unit Cost	Total Cost	Comments
Bore	11 - 200 ;020 inch ;P ;DIRECTIONAL BORING,W/O CASING	0	LF	14.78	\$0.00	Pipe not replaced
Replace Service	21 - 150 Replace service with main	3	LF	714.77	\$2,144.31	Assumes replacement of half
Tie-over	25 - 005 inch P SVC,TIE-OVER,PE EA	0	EA	383.43	\$0.00	No tie over on uprated pipe
Backfill	36 - 030 inch STONE DUST,CONTR PRVD TN	20	TN	29.51	\$ 590.20	Assumes backfill required to set up temporary station Currently cost is an assumption based on one contract; however, in 2012 this item will be included in each contract. Assumes main is located between curb and sidewalk and that Insufficient room exists to tie-in the temporary station without busting sidewalk.
Hard surface repair	46 - 040 inch 4" CONCRETE SIDEWALK 0-200 S SF	16	SF	8.04	\$ 128.64	
Change Regulator	Residential Meter Change Regulator	5	EA	56.32	\$ 281.60	
Move Meter	76 - 015 Move Out Residential Meter	2	EA	351.65	\$ 703.30	
Relight	77 - 010 Relight	5	EA	84.09	\$ 420.45	Relight after meter/regulator work Contract labor to transport temp station to and from site, site prep, and Installation of station and inlet and outlet piping.
T & E	98 - 400 inch MN/SVCS-4-MAN CREW HR	16	HR	270.55	\$ 4,328.80	
Tie-In	53 - 200 020 inch HVTT,2" OUTLET,2-12" MN EA	2	EA	369	\$ 738.00	Tie-ins for temp station Even though pipe was previously installed, no guarantee it is not located in sewer.
Sewer Camera	98 - 250 inch ELECTR/VIDEOSWR LOCATE HR	16	HR	221.67	\$3,546.72	Purge and place station in operation
Labor	M&R Technician	8	HR	39.12	\$ 312.96	
Labor	Construction Coordinator	16	HR	39.12	\$ 625.92	
Labor	Leakage Inspector (Uprate walks)	8	HR	39.12	\$ 312.96	Leakage survey - mains and services
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Vehicle Expense	M&R Truck	8	HR	14.1	\$ 112.80	
Vehicle Expense	Construction Coordinator Truck	16	HR	14.1	\$ 225.60	
Vehicle Expense	Leakage Inspector Truck	12	HR	14.1	\$ 169.20	
Misc Expense	Temporary Construction Easement/Damages	1	EA	1000	\$ 1,000.00	Acquire safe site for temporary station.
Materials	2" Plastic Pipe for statlon inlet/outlet	50	FT	0.781	\$ 39.05	Assumes 25 feet of temporary station piping.
Materials	HVT - 43-20-2303	2	EA	48.79	\$ 97.58	Assume 2" HVT
Overheads	Construction Overheads			16.10%	\$ 2,220.23	
					<u>\$18,154.80</u>	

**New 4" Plastic Replacement Main**

Short Description	Long Description	Quantity	UOM	Unit Cost	Total Cost	Comments
Bore	11 - 304 ;040 Inch ;P ;DIRECTIONAL BORING,W/O CASING ;LF	365	LF	14.78	\$5,394.70	Iterate the footage here and the two items below to match the incremental uprate cost.
Replace Service	21 - 150 Replace service with main	3	LF	714.77	\$2,144.31	Assumes half replace, half tie-over
Tie-over	25 - 005 inch P SVC,TIE-OVER,PE EA	2	EA	383.43	\$766.86	COH Customer Density is 1 customer per 76 feet of distribution pipe
Backfill	36 - 030 inch STONE DUST,CONTR PRVD TN	0	TN	29.51	\$ -	Assumes between curb and sidewalk.
Hard surface repair	48 - 040 inch 4" CONCRETE SIDEWALK 0-200 S SF	0	SF	8.04	\$ -	Assumes replacement main is between curb and sidewalk.
Tie-in	53 - 200 020 inch HVTT,2" OUTLET,2-12" MN EA	0	EA	368	\$ -	No tie in required if replacing this pipe section
Change Regulator	75 - 030 Residential Meter Change Regulator	5	EA	56.32	\$ 281.60	
Move Meter	76 - 015 Move Out Residential Meter	2	EA	351.65	\$ 703.30	Assumed that half the meters were already outside.
Relight	77 - 010 Relight	5	EA	84.09	\$ 420.45	Relight after meter regulator work.
Sewer Camera	98 - 250 inch ELECTR/VIDEOSWR LOCATE HR	16	HR	221.67	\$3,546.72	Could have non customers requiring locates.
Labor	Construction Coordinator	28	HR	39.12	\$1,095.36	Includes Labor Overheads
Vehicle	Truck Expense	28	HR	14.1	\$394.80	
Material	Pipe - 09-45-324	365	FT	2.47	\$901.55	
Overheads	Overheads	16.10%	%		\$2,519.59	Source: November 2011 Report
					<u>\$18,169.24</u>	

**Incremental 6" Uprate**

Short Description	Long Description	Quantity	UOM	Unit Cost	Total Cost	Comments
Bore	11 - 200 ;020 inch ;P ;DIRECTIONAL BORING,W/O CASING	0	LF	23.21	\$0.00	Pipe not replaced
Replace Service	21 - 150 Replace service with main	2	LF	714.77	\$1,429.54	Assumes half replaced
Tie-over	25 - 005 inch P SVC,TIE-OVER,PE EA	0	EA	383.43	\$0.00	No tie over on uprated pipe
Backfill	36 - 030 inch STONE DUST,CONTR PRVD TN	20	TN	29.51	\$ 590.20	Assumes backfill required to set up temporary station Currently cost is an assumption based on one contract; however, in 2012 this item will be included in each contract.
Hard surface repair	46 - 040 inch 4" CONCRETE SIDEWALK 0-200 S SF	16	SF	8.04	\$ 128.64	Assumes main is located between curb and sidewalk and that insufficient room exists to tie-in the temporary station without busting sidewalk.
Change Regulator	Residential Meter Change Regulator	3	EA	56.32	\$ 168.96	
Move Meter	76 - 015 Move Out Residential Meter	1	EA	351.65	\$ 351.65	Assume half already outside.
Relight	77 - 010 Relight	3	EA	84.09	\$ 252.27	Relight after meter/regulator work Contract labor to transport temp station to and from site, site prep. and installation of station and inlet and outlet piping.
T & E	98 - 400 inch MN/SVCS-4-MAN CREW HR	16	HR	270.55	\$ 4,328.80	
Tie-in	53 - 200 020 inch HVTT,2" OUTLET,2-12" MN EA	2	EA	369	\$ 738.00	Tie-ins for temp station Even though pipe was previously installed, no guarantee it is not located in sewer.
Sewer Camera	98 - 250 inch ELECTR/MDEOSWR LOCATE HR	16	HR	221.67	\$3,546.72	Purge and place station in operation
Labor	M&R Technician	8	HR	39.12	\$ 312.96	
Labor	Construction Coordinator	16	HR	39.12	\$ 625.92	
Labor	Leakage Inspector (Uprate walks)	8	HR	39.12	\$ 312.96	Leakage survey - mains and services
Labor	Leakage Inspector (pre walk)	2	HR	39.12	\$ 78.24	Leakage survey - mains and services
Labor	Leakage Inspector (post walk)	2	HR	39.12	\$ 78.24	Leakage survey - mains and services
Vehicle Expense	M&R Truck	8	HR	14.1	\$ 112.80	
Vehicle Expense	Construction Coordinator Truck	16	HR	14.1	\$ 225.60	
Vehicle Expense	Leakage Inspector Truck	12	HR	14.1	\$ 169.20	
Misc Expense	Temporary Construction Easement/Damages	1	EA	1000	\$ 1,000.00	Acquire safe site for temporary station.
Materials	2" Plastic Pipe for station inlet/outlet	50	FT	0.781	\$ 39.05	Assumes 25 feet of temporary station plping.
Materials	HVT - 43-20-2303	2	EA	48.79	\$ 97.58	Assume 2" HVT
Overheads	Construction Overheads			16.10%	\$ 2,118.40	
					<u>\$16,705.73</u>	

**New 6" Plastic Replacement Main**

Short Description Long Description

Bore	11 - 600 ;060 inch ;P ;DIRECTIONAL BORING,W/O CASING ;LF
Replace Service	21 - 150 Replace service with main
Tie-over	25 - 005 inch P SYG,TIE-OVER,PE EA
Backfill	36 - 030 inch STONE DUST,CONTR PRVD TN
Hard surface repair	46 - 040 inch 4" CONCRETE SIDEWALK 0-200 S SF
Tie-in	53 - 200 020 inch HVTT,2" OUTLET,2-12" MN EA
Change Regulator	75 - 030 Residential Meter Change Regulator
Move Meter	76 - 015 Move Out Residential Meter
Relight	77 - 010 Relight
Sewer Camera	98 - 250 inch ELECTR/VIDEOSWR LOCATE HR
Labor	Construction Coordinator
Vehicle	Truck Expense
Material	Pipe - 09-45-332
Overheads	Overheads

Quantity	UOM	Unit Cost	Total Cost	Comments
250	LF	23.21	\$5,802.50	Iterate the footage here and the two items below to match the incremental uprate cost.
2	LF	714.77	\$1,429.54	Assumes half replace half tie-over
1	EA	383.43	\$383.43	COH Customer Density is 1 customer per 76 feet of distribution pipe
0	TN	29.51	\$ -	Assumes between curb and sidewalk.
0	SF	8.04	\$ -	Assumes replacement main is between curb and sidewalk.
0	EA	369	\$ -	No tie in required if replacing this pipe section
3	EA	56.32	\$ 168.96	
1	EA	351.65	\$ 351.65	Assumed that half the meters were already outside.
3	EA	84.09	\$ 252.27	Relight after meter regulator work.
16	HR	221.67	\$3,546.72	Could have non customers requiring locates.
24	HR	39.12	\$938.88	Includes Labor Overheads
24	HR	14.1	\$338.40	
250	FT	4.72	\$1,180.00	
16.10%	%		\$2,317.17	Source: November 2011 Report
			<u>\$16,709.52</u>	

**Incremental 8" Uprate**

Short Description	Long Description	Quantity	UOM	Unit Cost	Total Cost	Comments
Bore	11 - 200 ;020 inch ;P ;DIRECTIONAL BORING,W/O CASING	0	LF	28.24	\$0.00	Pipe not replaced
Replace Service	21 - 150 Replace service with main	2	LF	714.77	\$1,429.54	
Tie-over	25 - 005 inch P SVC,TIE-OVER,PE EA	0	EA	383.43	\$0.00	No tie over on uprated pipe
Backfill	36 - 030 inch STONE DUST,CONTR PRVD TN	20	TN	29.51	\$ 590.20	Assumes backfill required to set up temporary station Currently cost is an assumption based on one contract; however, In 2012 this item will be included in each contract, Assumes main is located between curb and sidewalk and that insufficient room exists to tie-in the temporary station without busting sidewalk.
Hard surface repair	46 - 040 inch 4" CONCRETE SIDEWALK 0-200 S SF	16	SF	8.04	\$ 128.64	
Change Regulator	Residential Meter Change Regulator	3	EA	56.32	\$ 168.96	
Move Meter	76 - 015 Move Out Residential Meter	1	EA	351.65	\$ 351.65	Assume half already outside.
Relight	77 - 010 Relight	3	EA	84.09	\$ 252.27	Relight after meter/regulator work Contract labor to transport temp station to and from site, site prep, and installation of station and inlet and outlet piping.
T & E	98 - 400 inch MN/SVCS-4-MAN CREW HR	16	HR	270.55	\$ 4,328.80	
Tie-in	53 - 200 020 inch HVTT,2" OUTLET,2-12" MN EA	2	EA	369	\$ 738.00	Tie-ins for temp station Even though pipe was previously installed, no guarantee it is not located in sewer.
Sewer Camera	98 - 250 inch ELECTR/VIDEOSWR LOCATE HR	8	HR	221.67	\$1,773.36	Purge and place station in operation
Labor	M&R Technician	8	HR	39.12	\$ 312.96	
Labor	Construction Coordinator	16	HR	39.12	\$ 625.92	
Labor	Leakage Inspector (Uprate walks)	8	HR	39.12	\$ 312.96	Leakage survey - mains and services
Labor	Leakage Inspector (pre walk)	2	HR	39.12	\$ 78.24	Leakage survey - mains and services
Labor	Leakage Inspector (post walk)	2	HR	39.12	\$ 78.24	Leakage survey - mains and services
Vehicle Expense	M&R Truck	8	HR	14.1	\$ 112.80	
Vehicle Expense	Construction Coordinator Truck	16	HR	14.1	\$ 225.60	
Vehicle Expense	Leakage Inspector Truck	12	HR	14.1	\$ 169.20	
Misc Expense	Temporary Construction Easement/Damages	1	EA	1000	\$ 1,000.00	Acquire safe site for temporary station.
Materials	2" Plastic Pipe for station inlet/outlet	50	FT	0.781	\$ 39.05	Assumes 25 feet of temporary station piping.
Materials	HVT - 43-20-2303	2	EA	48.79	\$ 97.58	Assume 2" HVT
Overheads	Construction Overheads			16.10%	\$ 1,832.89	
					<u>\$14,646.86</u>	

**New 8" Plastic Replacement Main**

**Short Description Long Description**

Short Description	Long Description	Quantity	UOM	Unit Cost	Total Cost	Comments
Bore	11 - 800 ;080 inch ;P ;DIRECTIONAL BORING,W/O CASING ;LF	205	LF	28.24	\$5,789.20	Iterate the footage here and the two items below to match the incremental uprate cost.
Replace Service	21 - 150 Replace service with main	2	LF	714.77	\$1,429.54	Assumes half replace and half tie-over
Tie-over	25 - 005 inch P SVC,TIE-OVER,PE EA	1	EA	383.43	\$383.43	COH Customer Density is 1 customer per 76 feet of distribution pipe
Backfill	36 - 030 inch STONE DUST,CONTR PRVD TN	0	TN	29.51	\$ -	Assumes between curb and sidewalk.
Hard surface repair	46 - 040 inch 4" CONCRETE SIDEWALK 0-200 S SF	0	SF	8.04	\$ -	Assumes replacement main is between curb and sidewalk.
Tie-in	53 - 200 020 inch HVTI,2" OUTLET,2-12" MN EA	0	EA	369	\$ -	No tie in required if replacing this pipe section
Change Regulator	75 - 030 Residential Meter Change Regulator	3	EA	56.32	\$ 168.96	
Move Meter	76 - 015 Move Out Residential Meter	1	EA	351.65	\$ 351.65	Assumed that half the meters were already outside.
Relight	77 - 010 Relight	3	EA	84.09	\$ 252.27	Relight after meter regulator work.
Sewer Camera	98 - 250 inch ELECTRVIDEOSWR LOCATE HR	8	HR	221.67	\$1,773.36	Could have non customers requiring locates.
Labor	Construction Coordinator	16	HR	39.12	\$625.92	Includes Labor Overheads
Vehicle	Truck Expense	16	HR	14.1	\$225.60	
Material	Pipe - 09-45-339	205	FT	7.97	\$1,633.85	
Overheads	Overheads	16.10%	%		\$2,034.04	Source: November 2011 Report
					<u>\$14,667.82</u>	

Columbia Exhibit No. \_\_\_\_\_

**BEFORE  
THE PUBLIC UTILITIES COMMISSION OF OHIO**

In the Matter of the Annual Application of )  
Columbia Gas of Ohio, Inc. for an Adjustment )  
to Rider IRP and Rider DSM Rates )

Case No. 10-2353-GA-RDR

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**PREPARED DIRECT TESTIMONY  
OF ERIC T. BELLE  
ON BEHALF OF COLUMBIA GAS OF OHIO, INC.**

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**COLUMBIA GAS OF OHIO, INC.**

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February 28, 2011

Attorneys for  
**COLUMBIA GAS OF OHIO, INC.**

**PREPARED DIRECT TESTIMONY  
OF ERIC T. BELLE**

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1 **Q. Please state your name and business address.**

2 A. My name is Eric T. Belle and my business address is 200 Civic Center Drive, Columbus,  
3 Ohio 43215.

4  
5 **Q. By whom are you employed and in what capacity?**

6 A. I am employed by Columbia Gas of Ohio, Inc. ("Columbia"). My current title is Manager,  
7 Field Engineering.

8  
9 **Q. What are your responsibilities as Manager, Field Engineering?**

10 A. As Manager, Field Engineering, my principal responsibilities include overseeing the  
11 identification, planning, and design of virtually all capital work for Columbia's gas  
12 distribution system. I am also responsible for the development and monitoring of  
13 Columbia's capital budget.

14  
15 **Q. What is your educational background?**

16 A. I have a Bachelor of Science degree in Chemical Engineering from Syracuse University,  
17 Syracuse, New York and a Master's degree in Business Administration from Tiffin  
18 University, Tiffin, Ohio.

19  
20 **Q. Please briefly describe your professional experience?**

21 A. I was originally employed by Columbia as an Operations Engineering Trainee in 1995  
22 where I gained a broad understanding of the natural gas distribution industry. In 1997, I



1 accepted a position as an Operations Engineer. I was responsible for planning and designing  
2 natural gas distribution systems. In 2006, I was promoted to Field Engineering Leader  
3 where I was responsible for providing guidance, support, and direction to Columbia's Field  
4 Engineering department in northwest Ohio. In 2009, I was promoted to my current position  
5 of Manager, Field Engineering for Columbia.  
6

7 **Q. What is the purpose of your testimony?**

8 A. The purpose of my testimony is to explain the management, engineering, and construction  
9 practices of Columbia as they relate to the various components of Rider IRP, included in  
10 this filing, for the 2010 calendar year. I will also be discussing Columbia's performance  
11 with respect to its accelerated main replacement program and riser program.  
12

13 **Q. Please summarize Rider IRP and its components included in this filing.**

14 A. Rider IRP is an infrastructure tracker which captures cumulative plant investment over a  
15 specified period of time and provides for a return on and the return of all program costs. The  
16 program components that make up Columbia's IRP are: (1) the Accelerated Main  
17 Replacement Program ("AMRP"); (2) the riser replacement program and the replacement of  
18 hazardous service lines; and, (3) the AMRD program.  
19

20 **Q. Please describe the AMRP, riser replacement and replacement of hazardous service  
21 line programs.**

22 A. Columbia's AMRP targets certain types of main for replacement over the course of 25  
23 years. The types of gas main included in the AMRP are unprotected bare steel, unprotected

1 coated steel, wrought iron, and cast iron. These types of main ("Priority Pipe" or "Priority  
2 Main") typically have a greater probability to leak due to their material type, protection, age,  
3 and other characteristics. Also included in the AMRP is the replacement of all metallic  
4 service lines and associated appurtenances.

5 Columbia's riser replacement program was implemented to replace all of its  
6 Design-A risers that are prone to failure if not properly installed. Columbia has identified  
7 approximately 320,000 such risers that need to be replaced. The program was established to  
8 orderly and systematically replace these risers over the period of approximately three years.  
9 Along with the risers, Columbia also has responsibility of all maintenance, repair, and  
10 replacement of customer-owned service lines that have been determined by Columbia to  
11 present an existing or probable hazard to persons or property.

12  
13 **Q. Please summarize the AMRP and riser/hazardous service line performance portions**  
14 **of Rider IRP for 2010.**

15 **A.** For the 2010 AMRP, Columbia completed 365 projects associated with the retirement of  
16 Priority Pipe for a total cost of approximately \$31.4 million. The total footage replaced for  
17 each type of main is as follows:

18 Steel - 317,311'  
19 Iron - 16,050'  
20 Plastic - 39,411'

21 Also, in 2010, Columbia replaced 123,665 risers for a total cost of approximately  
22 \$53.7 million. During 2010, Columbia also replaced 9,879 hazardous customer service lines  
23 for a total cost of approximately \$21.9 million.

1 **Q. Why did Columbia retire plastic main in conjunction with this replacement program?**

2 A. In the past, as Priority Pipe has failed or leaked, Columbia replaced small sections with  
3 plastic to eliminate the hazard. These typically short sections of plastic main are scattered  
4 throughout systems consisting primarily of Priority Pipe. As Columbia designs an  
5 infrastructure replacement project and reviews the plastic sections of pipe located within the  
6 project boundaries, Columbia evaluates whether it makes financial sense to either tie into  
7 the existing plastic main or bypass and install all new main. Sometimes Columbia has no  
8 choice in abandoning the plastic main due to the new main being relocated to a different  
9 location.

10  
11 **Q. Has Columbia included the costs to replace the pieces of plastic main in this filing?**

12 A. Yes. Columbia has included the costs of retiring these portions of plastic main in  
13 conjunction with its infrastructure replacement projects in this tracker.

14  
15 **Q. How did Columbia determine which mains were to be replaced as part of its AMRP in  
16 2010?**

17 A. In 2010, Columbia utilized Optimain DS<sup>TM</sup> to help evaluate and rank pipe segments system-  
18 wide against a range of environmental conditions (e.g. population density, building class,  
19 surface cover type, etc.), risk factors (pipe segment leak history, pipe condition, pitting  
20 depth, depth of cover, etc.) and economic factors. In general, we identified, ranked and  
21 selected projects based on the level of relative risk score that would be removed from the  
22 system per every \$100,000 dollars of capital spent. This evaluation and risk ranking of pipe  
23 segments was then reviewed by the engineering and operations departments to assess

1 whether that data was consistent with what has been observed in the field. In addition,  
 2 Columbia worked collaboratively with local and state governments in areas where public  
 3 improvement work was to occur. Columbia reviewed plans and identified areas of Priority  
 4 Pipe within the scope of pending public improvement work. Columbia used both sets of  
 5 information listed above to help determine which sections of main were the best candidates  
 6 to select for replacement.

7  
 8 **Q. What are Columbia's construction plans for 2011?**

9 **A.** Columbia expects to spend approximately \$158 million on the various components of Rider  
 10 IRP in 2011. Columbia currently estimates it will spend approximately \$41 million on  
 11 risers/hazardous service lines, \$20 million on AMRD, and \$97 million on replacing  
 12 infrastructure. A current listing of Columbia's largest planned infrastructure projects are  
 13 shown below.

Location (Street and City)	Expected Released Date to Construction	Expected In Service Date	Estimated Total Cost (Includes Cost of Associated Service Lines)
Westway & Royalton, Toledo	2/1/11	TBD	\$6,100,000
Ontario St., Columbus	3/1/11	TBD	\$4,825,000
South & Westwood(Detroit & Myers Phase I), Toledo	5/15/11	TBD	\$2,833,500
Chesterfield/Marlborough, Parma	8/1/2011	TBD	\$2,555,000
Dryden Phase II, Zanesville	2/28/11	TBD	\$2,297,000
North St., Logan	1/15/11	TBD	\$2,143,000
Denver Ave., Bexley	1/15/11	TBD	\$1,937,000
OSU Neighborhood, Columbus	3/1/11	TBD	\$1,932,000
Walnut & Crane, Toledo	4/22/11	TBD	\$1,903,687
E. Lorain Phase. I AMRP, Lorain	4/1/11	TBD	\$1,879,000
Dartworth, Parma	12/31/10	TBD	\$1,847,000
Eldon Ave AMRP, Columbus	5/15/2011	TBD	\$1,831,000
N. Ogden Ave AMRP, Columbus	5/15/2011	TBD	\$1,825,000
Lincoln/Grant/Dresden/Green/Avondale, East Liverpool	6/1/2011	TBD	\$1,693,325
Chippewa Lake, Chippewa	4/1/11	TBD	\$1,691,000
Hamilton , Toledo	5/15/11	TBD	\$1,657,860
McCreight Ave, Springfield	4/15/2011	TBD	\$1,562,860

Alderwood, Springwood, Parma Hts.	7/1/2011	TBD	\$1,508,000
New London's, New London	3/15/11	TBD	\$1,445,000
Vance, Toledo	4/1/11	TBD	\$1,405,655
Jameson/Ridgefield/Arden/Wooster, Parma	8/1/2011	TBD	\$1,390,000
Renwood/W.54th, Parma	6/1/2011	TBD	\$1,330,000
Beaumont, Toledo	4/1/11	TBD	\$1,319,000
Tumplike, Perrysburg	5/26/11	TBD	\$1,300,600
6th St AMRP, Portsmouth	5/15/2011	TBD	\$1,295,000
Lincoln Street AMRP, Bay Village	3/1/11	TBD	\$1,274,000
Noble, 44th, Jefferson, Bellalre	4/1/11	TBD	\$1,263,000
Egmont St., Springfield	12/1/10	TBD	\$1,251,480
E State St AMRP, Athens	5/15/2011	TBD	\$1,235,000
Walnut St., Urbana	12/1/10	TBD	\$1,233,300
Whitehead Rd, Columbus	5/15/2011	TBD	\$1,225,000
Town of Mc Guffey, Mc Guffey	3/15/11	TBD	\$1,218,500
Valleyview AMRP, Valleyview	5/1/2011	TBD	\$1,200,000
Murray Ave., Minerva	2/28/11	TBD	\$1,182,000
Neffs St., Neffs	1/31/11	TBD	\$980,000
S. Drexel Ave., Bexley	1/15/11	TBD	\$975,000
E. Mound St., Circleville	12/1/10	TBD	\$909,000
Detroit & Myers Phase II, Toledo	5/15/11	TBD	\$885,015
Sara St(Incremental), Urbana	1/17/2011	TBD	\$869,400
Dublin Rd/Grandview Ave., Columbus	3/1/11	TBD	\$846,500
E. Liberty, Ashland	1/3/11	TBD	\$837,000
Talbot Phase 2 (Expansion), Toledo	4/29/2011	TBD	\$835,500
Lakeside/Garfield/Main, New Concord	6/1/2011	TBD	\$812,500
Talbot, Toledo	4/1/11	TBD	\$779,500
Y & O Rd., East Liverpool	2/28/11	TBD	\$764,500
Jermain Ave., Columbus	1/15/11	TBD	\$759,000
9th & Lincoln, Portsmouth	12/1/10	TBD	\$759,000
SR 545, Mansfield	5/9/2011	TBD	\$757,250
Murphy's Service (SR-62), Salem	2/28/11	TBD	\$756,000
Fernwood & Overlook, Alliance	1/31/10	TBD	\$750,000
Enfield Place, Columbus	1/15/11	TBD	\$750,000
2nd St SE, Carrollton	4/29/2011	TBD	\$749,130
Elyria Ave., Elyria/Sheffield Twp	1/31/11	TBD	\$739,000
Parkway Blvd., Alliance	1/31/11	TBD	\$685,000
S. Arch & E. High St, Alliance	5/13/2011	TBD	\$661,500
South of Smiley, Shelby	3/7/11	TBD	\$640,000
South Lincoln Phase 2, Salem	2/28/11	TBD	\$590,000
Wellsville, Wellsville	2/28/11	TBD	\$589,000
14th St., Coshocton	12/31/10	TBD	\$588,000
St. Clair Ave., Columbus	1/15/11	TBD	\$575,000
Rockhill Ave., Alliance	2/28/11	TBD	\$556,000
Canfield Reg#1 Elimination, Canfield	5/27/2011	TBD	\$549,800
Pearl Rd., Parma Hts.	12/31/10	TBD	\$543,000
Walhalla, Columbus	1/15/11	TBD	\$515,500
Huntmere Rd, Bay Village	5/15/2011	TBD	\$511,000

Sara St., Urbana	1/10/10	TBD	\$492,000
Cline Ave., Mansfield	6/1/2011	TBD	\$485,200
Fairway Phase 2, Zanesville	1/31/11	TBD	\$484,240
Cleveland Rd Bare 10" Replacement, Sandusky	3/15/11	TBD	\$484,000
Glendwell Road, Steubenville, Steubenville	2/15/11	TBD	\$474,000
Opal Blvd. & Wilma Ave., Steubenville	2/15/11	TBD	\$463,000
Marlow/Talbot Phase 3 (Expansion), Toledo	5/27/2011	TBD	\$438,700
Manhattan & Elm, Toledo	4/1/11	TBD	\$437,000
South Lincoln Phase 1, Salem	12/31/10	TBD	\$421,000
Bryant Dr., Coal Grove	6/1/11	TBD	\$420,000
W. Fourth St., Fostoria	3/15/11	TBD	\$410,000
Zanesville HP, Zanesville	4/1/11	TBD	\$397,000
Walnut & Crane (Expansion), Toledo	3/14/2011	TBD	\$396,340
Madison, Mansfield	1/3/11	TBD	\$395,000
North Ridge Road East AMRP, Sheffield Twp	12/31/10	TBD	\$392,000
Mrytle - Wilmer, Zanesville	12/31/10	TBD	\$383,000
Burg and Thornwood, Granville	6/1/2011	TBD	\$380,000
W. Ohio St., Rittman	12/31/11	TBD	\$378,000
Park Avenue West, Mansfield	3/31/2011	TBD	\$374,000
Toledo Ave AMRP, Sheffield Twp	12/31/10	TBD	\$367,000
Beaumont Expansion, Toledo	4/22/2011	TBD	\$342,125
SR 243, Chesapeake	3/1/11	TBD	\$326,000
Dunham & Fearing (Detroit & Myers Phase III), Toledo	6/1/2011	TBD	\$326,000
Roosevelt & Shane (Waynesburg), Waynesburg	12/31/10	TBD	\$315,500
Goshen Ln., Gahanna	12/1/10	TBD	\$304,000
Cleveland Ave. & Rockdale St., Steubenville	1/31/11	TBD	\$285,000
Mermill Rd, Rudolph	6/1/2011	TBD	\$222,000
Lakeville, Lakeville	6/15/2011	TBD	\$222,000
Mound St., Whitehall	12/1/10	TBD	\$221,000
McNaughten Rd., Columbus	1/20/11	TBD	\$217,500
Berdan @ RR, Toledo	6/1/11	TBD	\$213,000
Knickerbocker Rd, Bay Village	2/8/2011	TBD	\$212,326
Beltline South AMRP, Elyria	2/28/11	TBD	\$210,000
Main/Newark, New Straltsville	2/15/11	TBD	\$206,400
Plum St., Jeromesville	5/2/11	TBD	\$200,500

1  
2 Additional Priority Pipe projects will be constructed throughout the year. Many of these  
3 projects have either not yet been identified or involve third party coordination for which the  
4 schedules cannot be relied upon at this time. These projects will address existing hazards  
5 and/or eliminate risky pipe in conjunction with public works projects.  
6

1 Q. Please describe Columbia's process for determining the resources to be used in  
2 conjunction with the AMRP projects.

3 A. The majority of all Columbia's capital work is performed by contractors. However, local  
4 Columbia employees perform work on some smaller projects when they are available.  
5 Columbia evaluates each project on a variety of criteria to determine who will perform the  
6 work. Generally, any project with a total estimated contractor cost greater than \$500,000 is  
7 likely to be placed up for bid. The majority of all work with expected contractor cost less  
8 than \$500,000 is given to our local "blanket" contractor to be worked. "Blanket"  
9 construction contracts are bid as well. The duration of blanket contracts are for three years.  
10

11 Q. What percentage of contractors working on AMRP projects in 2010 consisted of Ohio  
12 labor?

13 A. As part of the Stipulation in Case No. 08-72-GA-AIR, et al., approved by the Commission  
14 on December 3, 2008, Columbia agreed to encourage its AMRP contractors to use their best  
15 efforts to retain Ohio labor to perform AMRP related services. In the Joint Stipulation and  
16 Recommendation in Case No. 09-0006-GA-UNC, filed on June 2, 2009, and approved by  
17 the Commission on June 24, 2009, Columbia agreed to continue to encourage its AMRP  
18 contractors to use Ohio labor, and to report on Ohio labor participation in the AMRP  
19 program. Columbia has added language to its bid packages stating a preference that Ohio  
20 labor be used whenever possible as long as the price and quality of work is not negatively  
21 impacted. For 2010, 75% of contractor labor workforce on AMRP projects was from Ohio.  
22

1 Q. Please describe Columbia's process for determining the resources to be used for the  
2 replacement of risers.

3 A. Columbia primarily contracts out the riser replacement work. This work was originally  
4 placed out for bid to over 2,150 contractors and plumbers via electronic notices and direct  
5 mail. Columbia received approximately 300 responses and evaluated them based upon  
6 number of employees, capacity to perform the required volume of work, prior experience,  
7 etc. Eleven pipeline contractors and nine plumbing contractors were invited to participate in  
8 the bidding process. Ultimately four contractors were awarded bids for work in various  
9 areas of the state.

10  
11 Q. Do contractors typically replace Columbia's hazardous customer service lines?

12 A. Contractors do replace some hazardous service lines in a few locations, but the majority of  
13 hazardous service lines are replaced by local Columbia employees.

14  
15 Q. Were there any O&M savings in 2010 associated with the replacement of priority  
16 pipe?

17 A. Using the methodology agreed to in the Stipulation and Order in Case No. 09-1036-GA-  
18 RDR, there was an O&M savings of approximately \$400,000 in 2010 associated with the  
19 replacement of priority pipe. The supporting calculation is further explained in the  
20 testimony of Columbia witness Noel.

21

22 Q. Did the various components included in this filing produce any other significant  
23 benefits for customers in 2010?



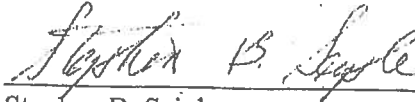
1 A. Customer safety has been improved significantly due to the replacement of 123,665 prone  
2 to fail risers and more than 9,879 hazardous service lines. With the completion of 365  
3 projects and the retirement of over 330,000 feet of Priority Pipe, Columbia was able to  
4 eliminate the chance of water entering the lines and freezing meters off in the winter. In  
5 addition, Columbia was able to retire distribution mains where it has habitually had to go in  
6 and dig up to repair the mains.

7  
8 **Q. Does this complete your Prepared Direct Testimony?**

9 A. Yes, it does.

CERTIFICATE OF SERVICE

I hereby certify that a copy of the foregoing Prepared Direct Testimony of Eric T. Belle was served upon all parties of record by regular U.S. Mail this 28<sup>th</sup> day of February, 2011.



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**COLUMBIA GAS OF KENTUCKY, INC.  
RESPONSE TO ATTORNEY GENERAL'S FIRST  
REQUEST FOR INFORMATION  
DATED JULY 19, 2013**

42. Reference page 8 of Mr. Belle's testimony.
- a. Provide the names, positions, titles, and company affiliation of each member of the NGD Capital Program Management.
  - b. Is the witness or any other Columbia representative allowed to provide any guidance in the decision making process of the NGD Capital Program Management? If not, why not. If yes, explain in detail how and what is presented.
  - c. Does the witness or any other Columbia representative vote or otherwise participate in the ultimate decision making process of the NGD Capital Program Management? If not, why not. If yes, explain in detail how.

**Response:**

- a. See the list below.

<b>Name</b>	<b>Job Title</b>	<b>Company Name</b>
Robert Mooney	Director Capital Program Management	NiSource Corporate Services
Brad Stuck	Manager, Gas Systems Planning	NiSource Corporate Services
Scott Baker	Leader, Capital Allocation & Asset Management	NiSource Corporate Services
Jose Lopez	Sr. Performance Improvement Analyst	NiSource Corporate Services
Judith Dean	Leader, Gas System Planning	NiSource Corporate Services
Ashley Rudy	Leader, Gas System Planning	NiSource Corporate Services
Gregory Davis	Gas Infrastructure Analyst	NiSource Corporate Services
Julie Gerhardt	Gas Infrastructure Analyst	NiSource Corporate Services
Matthew Alburn	Gas System Planning Engineer 1	NiSource Corporate Services
David Blough	Gas System Planning Technician	NiSource Corporate Services
Eric Carlson	Gas System Planning Engineer 1	NiSource Corporate Services
Virginia Copley	Gas System Planning Technician	NiSource Corporate Services
John Duggan	Gas System Planning Engineer 1	NiSource Corporate Services
Emily Hildenbrand	Gas System Planning Technician	NiSource Corporate Services
Edward Kyte	Gas System Planning Engineer 2	NiSource Corporate Services
Ned Leppo	Gas System Planning Engineer 2	NiSource Corporate Services
Stephen Otto	Gas System Planning Technician	NiSource Corporate Services
Cassandra Sager	Gas System Planning Technician	NiSource Corporate Services
Tina Tolson	Gas System Planning Technician	NiSource Corporate Services
Jeffrey Walck	Gas System Planning Technician	NiSource Corporate Services
Lyle Whittemore	Gas System Planning Engineer 2	NiSource Corporate Services

- b. Yes, as manager of Field Engineering, I make recommendations on capital allocations with the final approval authority resting with NGD's and NiSource's Senior Management.

c. Subject to NGD's Capital Authorization and Allocation Policy, final capital approval and ultimate decision making rests with NGD's and NiSource's Senior Management. However, I am involved in making capital allocation recommendations that support Columbia's short term and long range infrastructure related needs.

**COLUMBIA GAS OF KENTUCKY, INC.  
RESPONSE TO ATTORNEY GENERAL'S FIRST  
REQUEST FOR INFORMATION  
DATED JULY 19, 2013**

43. Reference pages 9 and 14 of Mr. Belle's testimony.
- a. Is the Optimain DS software a tool that the natural gas industry customarily relies in its decision making process?
  - b. Can an individual independently verify the results of the Optimain software without the use thereof and the same data entries that the company uses? If not, why not.

**Response:**

- a. Optimain DS is a widely used decision support tool in the natural gas industry. According to Opvantek, the vendor of Optimain DS, over 20% of the nation's natural gas distribution main is modeled in Optimain DS. In addition to Columbia Gas of Kentucky, some of the other distribution companies that use Optimain DS include Atmos Energy, Baltimore Gas & Electric Company, CenterPoint Energy, Dominion East Ohio Gas, Pacific Gas & Electric Company, PECO Energy, UGI Utilities, Washington Gas Light Company, and Xcel Energy.

b. Optimain DS results can be verified for reasonableness by comparing model results with operational experience.

**COLUMBIA GAS OF KENTUCKY, INC.  
RESPONSE TO ATTORNEY GENERAL'S FIRST  
REQUEST FOR INFORMATION  
DATED JULY 19, 2013**

44. Reference page 10 of Mr. Belle's testimony.
- a. Provide for each of the years from 2008 through 2012 the actual capital budget dollars spent.
  - b. Confirm that the witness states that the company spent \$69.9 million over five years.
  - c. Confirm that the average yearly capital spent was \$13.98 million.
  - d. Provide the expected capital budget for calendar year 2013.

**Response:**

See Columbia's response to AG data request Set One No. 24 Attachment A for capital related information from 2008 through 2012. See the table below for the expected capital budget for calendar year 2013.



## CKY Capital Detail Summary (\$000)

Budget Class	2013 Projected
New Business	\$5,290
Retail Services	\$0
Age and Condition (Replacement)	\$15,200
Betterment	\$100
Mandatory (Public Improvement)	\$2,600
Rentals	\$0
AMR	\$350
Support Services	\$1,000
Support Services - Segment IT	\$391
<b>Gross Capital</b>	<b>\$24,931</b>
Contributions	(\$200)
Reimb - Betterment	\$0
Reimb - Repl - Age & Condition	\$0
Reimb - Repl - Public Improvement	(\$400)
Total Cont/Reimb	(\$600)
<b>Total Segment Capital</b>	<b>\$24,331</b>
Corporate IT / Facilities Allocation	\$294
<b>Total Capital</b>	<b>\$24,625</b>
Bare Steel and Cast Iron replacement spend Included in the above numbers.	\$14,200
Automated Meter Reading Program spend included in the above numbers.	\$350

**COLUMBIA GAS OF KENTUCKY, INC.  
RESPONSE TO ATTORNEY GENERAL'S FIRST  
REQUEST FOR INFORMATION  
DATED JULY 19, 2013**

45. Reference pages 11 and 12 of Mr. Belle's testimony.
- a. Does the AMR provide the customer with any real time data information about usage?
  - b. Has the company done any studies, or is it aware of any studies, to determine whether there are any health effects of AMRs? If yes, please copies of such reports.

**Response:**

- a. The AMR system being installed by Columbia will not provide real time gas usage information.
- b. Columbia hasn't conducted any studies and isn't aware of any studies which address any health effects of AMRs.

**COLUMBIA GAS OF KENTUCKY, INC.  
RESPONSE TO ATTORNEY GENERAL'S FIRST  
REQUEST FOR INFORMATION  
DATED JULY 19, 2013**

46. Reference page 12 of Mr. Belle's testimony. Is this testimony to be interpreted to mean that that the company waited until 2008 to replace the certain types of pipe in its system? If yes, why did the company wait until 2008?

**Response:**

No. Columbia identified and replaced unprotected pipelines prior to 2008. In 2008, Columbia began its accelerated main replacement program to replace the remaining miles of unprotected gas pipelines in its system over a 30-year period.

**COLUMBIA GAS OF KENTUCKY, INC.  
RESPONSE TO ATTORNEY GENERAL'S FIRST  
REQUEST FOR INFORMATION  
DATED JULY 19, 2013**

47. If the answer to the prior question is yes, does the company believe that standards in the natural gas industry did not materialize until 2008 to routinely identify and replace "unprotected coated steel, cast iron and wrought iron?" Regardless of the answer, explain in detail.

**Response:**

See Columbia's response to AG's Data Request Set One No. 046.

KY PSC Case No. 2013-00167  
Response to AG's Data Request Set One No. 048  
Respondent: Eric T. Belle

**COLUMBIA GAS OF KENTUCKY, INC.  
RESPONSE TO ATTORNEY GENERAL'S FIRST  
REQUEST FOR INFORMATION  
DATED JULY 19, 2013**

48. If the standards did not materialize until 2008, did the company not believe that due diligence would not otherwise dictate that a local distribution company should inspect and replace unprotected gas pipelines prior to that year? Regardless of the answer, explain in detail.

**Response:**

See Columbia's response to AG's Data Request Set One No. 046.

**COLUMBIA GAS OF KENTUCKY, INC.  
RESPONSE TO ATTORNEY GENERAL'S FIRST  
REQUEST FOR INFORMATION  
DATED JULY 19, 2013**

49. Reference page 13 of Mr. Belle's testimony. Does the 25 year planning year horizon provide for any updating of the system's pipes to re-prioritize pipe replacement?

**Response:**

Yes. Columbia has the opportunity to update and re-prioritize the pipelines for replacement over the life of the AMRP. Columbia's engineering department annually reviews and prioritizes the results from Optimain DS™, a decision support and risk analysis software along with other factors to effectively execute the replacement of priority pipe.

**COLUMBIA GAS OF KENTUCKY, INC.  
RESPONSE TO ATTORNEY GENERAL'S FIRST  
REQUEST FOR INFORMATION  
DATED JULY 19, 2013**

50. Reference page 13 of Mr. Belle's testimony regarding the AMRP.
- a. Provide for each of the years from 2008 through 2012 the actual capital budget dollars spent and the miles of "Priority Pipe, associated lines and/or appurtenances" replaced.
  - b. Confirm that the witness states that the company spent \$45 million over five years.
  - c. Confirm that the average yearly capital spent was \$9 million.

**Response:**

See Columbia's response to AG Data Request Set One No. 50 Attachments A and B.

PSC Case No. 2013-00167  
 AG's DR Set 1 No. 50  
 Attachment A

CKY Historical Actual  
 (\$000,000)

Business Class	2008	2009	2010	2011	2012	2008-2012	5-Year Average
	<i>Dec-YTD Actual*</i>	Dec-YTD Actual	Dec-YTD Actual	Dec-YTD Actual	Dec-YTD Actual	Actual	Actual
Non AMRP	2.92	3.86	5.36	5.13	7.55	24.81	4.96
*AMRP	10.66	9.14	4.77	9.22	11.36	45.15	9.03
<b>Totals</b>	<b>13.58</b>	<b>13.00</b>	<b>10.13</b>	<b>14.35</b>	<b>18.90</b>	<b>69.96</b>	<b>13.99</b>

Note: CKY did not separately track AMRP actuals prior to 2009. The 2008 AMRP actual for 2008 was estimated based on 98% of the \$10.88 million replacement budget class spend for this year (See AG's DR Set 1 No. 50 Attachment B for the replacement spend for 2008)

CKY Priority Pipe & Services Replaced

	2008	2009	2010	2011	2012
Priority Pipe Replaced(miles)	20	20	6	5	19
Service Lines Replaced	1,933	2,242	1,308	1,780	1,621



PSC Case No. 2013-00167  
 AG's DR Set 1 No. 50  
 Attachment B

CKY Historical  
 Actuals

	2008	2009	2010	2011	2012
	0&12	0&12	0&12	2&10	0&12
	Dec-YTD	Dec-YTD	Dec-YTD	Dec-YTD	Dec-YTD
Business Class	Actual	Actual	Actual	Actual	Actual
New Business	1.64	1.89	1.57	1.77	3.81
Betterment	0.37	0.09	0.06	0.02	0.40
Replacement	10.88	9.16	5.87	10.14	11.87
Public Improvement	0.06	1.19	1.28	1.17	1.24
AMR	0.00	0.00	(0.00)	0.00	0.00
Support	0.20	0.18	0.25	0.62	0.80
Support - IT	0.00	0.00	1.04	0.46	0.39
Corp. IT	0.43	0.48	0.05	0.18	0.39
<b>Total</b>	<b>13.58</b>	<b>13.00</b>	<b>10.13</b>	<b>14.35</b>	<b>18.90</b>

**COLUMBIA GAS OF KENTUCKY, INC.  
RESPONSE TO ATTORNEY GENERAL'S FIRST  
REQUEST FOR INFORMATION  
DATED JULY 19, 2013**

51. Reference the Gresham testimony in general.
- a. How much does Columbia of Kentucky pay NiSource Corporate Services Company on an annual basis?
  - b. Explain in detail any and all services or goods that NiSource Corporate Services Company provides Columbia of Kentucky on an annual basis.

**Response:**

- a. For contract billings, Columbia Gas of Kentucky paid NiSource Corporate Services Company ("NCSC") \$13,449,161 for the twelve month period, January 2012 to December 2012 (see Attachment A). For convenience billings, Columbia Gas of Kentucky paid NCSC \$22,226,250 for the twelve month period, January 2012 to December 2012 (see Attachment B).

b. Refer to Columbia's response to AG data request number 1-283 Attachment A for a detail listing of services provided by NCSC related to contract billings. Refer to the direct testimony of Susanne M. Taylor attachment "Direct Testimony-Attachment SMT-2" pages 7 – 10 for descriptions of services provided.

PSC Case No. 2013-00167  
AG-1-051  
Attachment A  
Respondent: Susan Taylor

**FERC FORM NO. 60 Page 307**

**Schedule XVII - Analysis of Billing - Associate Companies (Account 457)**

**Line No. Name of Associate Company Total Amount Billed**

3	Columbia Gas of Kentucky Inc	13,449,161
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PSC Case No. 2013-00167  
AG-1-051  
Attachment B  
Respondent: Susan Taylor

FERC FORM NO. 60 Page 106  
Schedule V - Accounts Receivable from Associate Companies  
FOOTNOTE DATA

Associate Company	Audit Fees	Capital Property	Corporate Insurance	Employee Benefits	Leasing	Postage and Mailing Services	Telecom	Accommodation Payments *	Other	Total
Columbia Gas of Kentucky, Inc.	170,681	835,764	1,085,099	3,614,213	420,751	589,448	188,555	15,369,995	951,745	23,226,250

\* Represents accommodation payments made by NCSC on behalf of associated companies. Some significant amounts represent gas purchase payments made on behalf of Columbia Gas of Kentucky (\$14.6 million).

**COLUMBIA GAS OF KENTUCKY, INC.  
RESPONSE TO ATTORNEY GENERAL'S FIRST  
REQUEST FOR INFORMATION  
DATED JULY 19, 2013**

52. Reference page 3 of Mr. Gresham's testimony.
- a. Provide the names, positions, titles, and company affiliation of each member of the Forecasting Group.
  - b. Is any Columbia representative allowed to provide any guidance in the decision making process of the Forecasting Group? If not, why not. If yes, explain in detail how and what is presented.
  - c. Does any Columbia representative vote or otherwise participate in the ultimate decision making process of the Forecasting Group? If not, why not. If yes, explain in detail how.

**Response:**

- a. The Forecast Group is affiliated with NiSource Corporate Services. William Gresham is the manager. Joel Cohen, Kuankuan Lee, Dale Klink and Amy Efland are senior forecast analysts.

- b. The Forecasting Group receives guidance from the members of the New Business and Large Customer Relations groups as well as the Columbia management and the regulatory group.
- c. Columbia's forecast is reviewed and approved by among others, the Director of Regulatory Affairs for Columbia and the President, Columbia Gas of Kentucky.

**COLUMBIA GAS OF KENTUCKY, INC.  
RESPONSE TO ATTORNEY GENERAL'S FIRST  
REQUEST FOR INFORMATION  
DATED JULY 19, 2013**

53. Reference page 3 of Mr. Gresham's testimony.
- a. Provide the names, positions, titles, and company affiliation of each member of the Large Customers Relations Team.
  - b. Is any Columbia representative allowed to provide any guidance in the decision making process of the Large Customers Relations Team? If not, why not. If yes, explain in detail how and what is presented.
  - c. Does any Columbia representative vote or otherwise participate in the ultimate decision making process of the Large Customers Relations Team? If not, why not. If yes, explain in detail how.

**Response:**

- a. The Large Customer Relations employees include Tyler Burke, Major Account Representative; Richard Ricks, Manager; Large Customer Relations; and Scott Phelps, Director, Large Customer Relations.



- b. The Major Account Representative works exclusively with Columbia Gas of Kentucky customers and operates out of the same office building in Lexington, and has frequent contact with, many Columbia employees, including the President of Columbia, who are able to provide insight and input to the work being done by the Representative.
- c. The forecast of large customer accounts that is performed by the LCR group, and which is the topic of page 3 of Mr. Gresham's testimony, is reviewed and approved by among others, the Director, Regulatory Affairs for Columbia and the President, Columbia Gas of Kentucky.

**COLUMBIA GAS OF KENTUCKY, INC.  
RESPONSE TO ATTORNEY GENERAL'S FIRST  
REQUEST FOR INFORMATION  
DATED JULY 19, 2013**

54. Reference page 3 of Mr. Gresham's testimony.
- a. Provide the names, positions, titles, and company affiliation of each member of the New Business Team.
  - b. Is any Columbia representative allowed to provide any guidance in the decision making process of the New Business Team? If not, why not. If yes, explain in detail how and what is presented.
  - c. Does any Columbia representative vote or otherwise participate in the ultimate decision making process of the New Business Team? If not, why not. If yes, explain in detail how.

**Response:**

- a. The New Business employees include Nick Schlarb, New Business Rep; Heather Claypool, New Business Sr Representative; Tyler Hamilton, New Business Development Manager; Tammy Turner, Team Leader New Business; Myra Miller, Manager New Business Development; Patty

Potvin, Director, New Business. All are NiSource Corporate Services employees.

- b. Yes, Columbia employees have influence over New Business decision making processes. These individuals negotiate and approve New Business capital expenditures and negotiate customer contract terms. The New Business Development Manager works exclusively with Columbia Gas of Kentucky customers and operates out of the same office building in Lexington, and has frequent contact with, many Columbia employees, including the President of Columbia, who are able to provide insight and input to the work being done by the Manager.
- c. Yes, Columbia employees participate in the New Business decision making process, which is a collaborative process including input from various departments within the company; Engineering, Construction, New Business, Finance, Regulatory and Accounting for example. The forecast from the New Business team is reviewed and approved by among others, the Director, Regulatory Affairs for Columbia and the President, Columbia Gas of Kentucky.

KY PSC Case No. 2013-00167  
Response to AG's Data Request Set One No. 055  
Respondent: William J. Gresham

**COLUMBIA GAS OF KENTUCKY, INC.  
RESPONSE TO ATTORNEY GENERAL'S FIRST  
REQUEST FOR INFORMATION  
DATED JULY 19, 2013**

55. Reference page 5 of Mr. Gresham's testimony. Provide a copy of the "econometric model" in Excel, or other commercially available format, with all cells intact that the company references at line 5.

**Response:**

Please see Columbia's response to AG data request number 1-156.

**COLUMBIA GAS OF KENTUCKY, INC.  
RESPONSE TO ATTORNEY GENERAL'S FIRST  
REQUEST FOR INFORMATION  
DATED JULY 19, 2013**

56. Reference pages 6 and 7 of Mr. Gresham's testimony. Provide a copy of the "econometric model" in Excel, or other commercially available format, with all cells intact that the company references at page 7, line 2.

**Response:**

The model was estimated and processed using mainframe SAS and does not reside in spreadsheet format. The data used for model estimation and the forecast of the independent variables are included in a file included on a separate CD. The file is named "AG 1-56 Industrial.xlsx."

The econometric model for the industrial class was estimated as:

$\text{Ln}(\text{mcf}) = f ( \text{Ln}(\text{real price, LRP}), \text{Ln}(\text{ employment manufacturing, LEMF}), \text{Ln}(\text{industrial production index for Kentucky, LIP}), \text{actual HDD (ADDD)}, \text{monthly binary variables (Mmm)})$ . Ln represents natural log function.

The AUTOREG Procedure - Industrial Model

Yule-Walker Estimates

SSE	1.31383325	DFE	214
MSE	0.00614	Root MSE	0.07835
SBC	-422.75943	AIC	-516.84895
Regress R-Square	0.6617	Total R-Square	0.8928
Durbin-Watson	1.9939		

Variable	DF	Estimate	Standard Error	t Value	APPROX Pr >  t	Variable Label
Intercept	1	12.4327	0.6934	17.93	<.0001	
M1	1	0.1841	0.0568	3.24	0.0014	
M2	1	0.1379	0.0492	2.80	0.0056	
M3	1	0.1672	0.0415	4.03	<.0001	
M4	1	0.0580	0.0313	1.85	0.0655	
M5	1	0.0287	0.0270	1.06	0.2888	
M6	1	-0.0456	0.0231	-1.98	0.0490	
M7	1	-0.0854	0.0186	-4.59	<.0001	
M9	1	-0.001214	0.0188	-0.06	0.9486	
M10	1	0.1094	0.0270	4.05	<.0001	
M11	1	0.0955	0.0390	2.45	0.0150	
M12	1	0.1112	0.0527	2.11	0.0359	
LRF	1	-0.1544	0.0889	-1.74	0.0838	
LEMF	1	0.3500	2.0223E-9	1.731E8	<.0001	
LIP	1	0.1264	0.1570	0.80	0.4218	
ADDD	1	0.000225	0.0000510	4.42	<.0001	ACTUAL*HDD

Industrial

year	month	mcf	real price	mfr employment	total IPI	hdd
1992	1	1579610	10.35873	53.984	55.4	922
1992	2	1385051	10.63549	54.051	55.6	695
1992	3	1444412	10.6592	54.118	56.1	615
1992	4	1119292	10.81128	54.185	56.6	308
1992	5	1061453	10.82985	54.252	57.1	170
1992	6	984162.5	10.96394	54.319	57.2	17
1992	7	827776.9	11.27403	54.361	57.4	0
1992	8	900118.2	11.56718	54.402	57.5	7
1992	9	872154.7	11.56241	54.444	57.8	74
1992	10	1289969	11.4687	54.485	58	308
1992	11	1527506	11.55828	54.527	58.3	582
1992	12	1494872	11.58403	54.568	58.6	857
1993	1	1432607	11.16101	54.61	59	855
1993	2	1633636	11.01702	54.652	59.4	901
1993	3	1630425	10.82654	54.693	59.5	702
1993	4	1341752	11.39711	54.735	59.6	354
1993	5	1167691	11.52015	54.776	59.7	75
1993	6	998347.1	11.57028	54.818	59.9	22
1993	7	985173.3	11.31654	54.999	60	0
1993	8	1113823	11.01738	55.179	60.2	0
1993	9	1191094	11.14209	55.36	60.7	78
1993	10	1453465	11.18199	55.541	61.1	329
1993	11	1495983	11.16391	55.722	61.6	599
1993	12	1688926	11.7353	55.903	61.9	921
1994	1	1873974	10.97507	56.083	62.1	1212
1994	2	1652471	10.33347	56.264	62.4	786
1994	3	1834770	9.679411	56.445	63	655
1994	4	1311196	9.874294	56.626	63.6	222
1994	5	1356441	9.747199	56.807	64.1	177
1994	6	1106315	10.01714	56.988	64.6	5
1994	7	1203074	9.770257	57.263	65	1
1994	8	1251261	9.658445	57.539	65.4	3
1994	9	1291579	9.69089	57.815	65.9	51
1994	10	1759439	9.77629	58.091	66.3	246
1994	11	1898376	9.758879	58.367	66.8	443
1994	12	1824935	9.464727	58.643	67.2	739
1995	1	2152180	9.614313	58.919	67.6	965
1995	2	2231416	9.86061	59.195	68	869
1995	3	2138627	11.08331	59.47	68	543
1995	4	1706056	9.567513	59.746	68	279
1995	5	1633525	9.39516	60.022	68	103
1995	6	1352109	8.985475	60.298	68.2	6
1995	7	1132709	8.451609	60.33	68.4	0
1995	8	1253176	8.211769	60.362	68.6	0

1995	9	1261146	7.893178	60.394	68.8	70
1995	10	1613622	7.328128	60.427	69.1	262
1995	11	2012505	6.981218	60.459	69.3	746
1995	12	1933199	6.986547	60.491	69.4	979
1996	1	2453739	6.408771	60.523	69.5	1065
1996	2	2001248	6.112535	60.555	69.6	848
1996	3	1919223	5.870034	60.587	69.8	782
1996	4	1786197	5.800444	60.619	70.1	412
1996	5	1634850	5.760795	60.652	70.4	93
1996	6	1351477	5.587791	60.684	70.8	9
1996	7	1426991	5.885278	60.89	71.2	0
1996	8	1618700	5.962235	61.097	71.6	0
1996	9	1781185	5.992416	61.304	71.9	75
1996	10	2166156	6.194246	61.51	72.2	275
1996	11	2346680	6.454208	61.717	72.5	756
1996	12	2266435	6.403939	61.924	73	787
1997	1	2372532	7.203433	62.13	73.5	1036
1997	2	1948446	7.582441	62.337	74	678
1997	3	2125236	8.399443	62.544	74.5	583
1997	4	1991702	8.839661	62.75	75	433
1997	5	1806575	9.168074	62.957	75.5	226
1997	6	1569271	9.367542	63.164	76.1	37
1997	7	1645949	9.534011	63.38	76.8	1
1997	8	1789827	9.661062	63.596	77.4	4
1997	9	1917802	9.746398	63.812	77.8	46
1997	10	1961503	9.571929	64.029	78.3	309
1997	11	2010196	9.582394	64.245	78.7	688
1997	12	2077638	10.39006	64.461	79	906
1998	1	2079449	9.993662	64.677	79.3	742
1998	2	1869188	10.56516	64.894	79.6	656
1998	3	2047755	10.32007	65.11	80	615
1998	4	1702273	10.0136	65.326	80.3	303
1998	5	1699455	9.558804	65.542	80.6	53
1998	6	1423342	8.714356	65.758	80.9	30
1998	7	1412661	8.56728	65.788	81.2	0
1998	8	1622713	8.353453	65.818	81.4	0
1998	9	1532938	8.034972	65.849	81.9	13
1998	10	1734616	8.094293	65.879	82.4	238
1998	11	1657679	8.083646	65.909	82.9	504
1998	12	2061186	8.078463	65.939	83.5	782
1999	1	2341787	7.894992	65.969	84	863
1999	2	2069473	7.864941	65.999	84.6	702
1999	3	2272719	7.858616	66.029	84.8	744
1999	4	1694965	8.005047	66.059	85.1	231
1999	5	1609012	8.174976	66.089	85.3	37
1999	6	1494992	8.702476	66.119	85.8	2
1999	7	1430813	7.878952	66.117	86.3	0



1999	8	1478850	7.89919	66.116	86.7	0
1999	9	1561106	8.220611	66.115	87.3	46
1999	10	1905864	8.157774	66.114	87.8	252
1999	11	1986259	8.101842	66.112	88.3	453
1999	12	1911634	8.105147	66.111	88.6	829
2000	1	2180789	8.316377	66.11	88.9	1008
2000	2	1944962	8.352032	66.109	89.2	637
2000	3	1879942	8.40862	66.107	89.6	491
2000	4	1659842	8.467962	66.106	89.9	333
2000	5	1547636	8.358283	66.105	90.3	47
2000	6	1478978	8.42175	66.104	90.1	7
2000	7	1427641	9.428742	65.717	90	0
2000	8	1362406	9.644948	65.33	89.9	0
2000	9	1477140	9.66647	64.943	89.7	96
2000	10	1543142	9.984447	64.556	89.5	222
2000	11	1623995	10.21611	64.169	89.3	652
2000	12	1862481	10.50898	63.782	88.6	1203
2001	1	1673546	10.79307	63.395	87.8	1018
2001	2	1494821	11.0134	63.008	87.1	691
2001	3	1341796	11.36052	62.622	86.7	738
2001	4	1157585	11.57605	62.235	86.4	205
2001	5	1140960	12.05157	61.848	86.1	56
2001	6	1079194	12.44566	61.461	85.8	17
2001	7	1046542	12.52893	61.159	85.4	0
2001	8	1193161	12.52881	60.856	85.1	0
2001	9	1022634	12.77999	60.554	85	89
2001	10	1342113	12.76032	60.252	84.9	266
2001	11	1466278	12.91466	59.95	84.8	381
2001	12	1536847	13.06499	59.648	85.2	746
2002	1	1874491	12.72009	59.346	85.6	804
2002	2	1644870	12.64078	59.044	86	772
2002	3	1712648	12.5604	58.741	86.5	611
2002	4	1488124	12.34183	58.439	87	244
2002	5	1411859	12.16777	58.137	87.5	170
2002	6	1165667	11.9824	57.835	87.6	2
2002	7	1077462	11.94166	57.681	87.7	0
2002	8	1360618	11.95928	57.527	87.8	0
2002	9	1334441	11.82168	57.374	87.9	15
2002	10	1622997	11.13412	57.22	87.9	319
2002	11	1525291	10.83448	57.066	88	673
2002	12	1581707	10.48746	56.912	88.2	895
2003	1	1873607	9.731379	56.759	88.5	1180
2003	2	1601740	9.268364	56.605	88.7	916
2003	3	1341949	9.496089	56.451	88.6	523
2003	4	1115221	9.63881	56.297	88.4	249
2003	5	998252.3	9.92154	56.143	88.2	100
2003	6	964149.7	9.965742	55.99	88.7	28

2003	7	869227.8	10.02833	55.896	89.2	0
2003	8	964342.4	10.05914	55.803	89.7	0
2003	9	1029477	10.27856	55.709	90.1	77
2003	10	1159390	10.66055	55.616	90.4	281
2003	11	1186496	10.93414	55.522	90.8	471
2003	12	1572110	11.4113	55.428	91.1	906
2004	1	1769714	12.65715	55.335	91.3	1079
2004	2	1844353	13.73547	55.241	91.6	824
2004	3	1740857	13.98077	55.148	91.6	543
2004	4	1363564	14.46211	55.054	91.6	308
2004	5	1243213	14.25537	54.961	91.6	54
2004	6	1181551	14.34215	54.867	91.5	6
2004	7	1215606	14.30227	54.951	91.5	2
2004	8	1331112	14.76458	55.034	91.4	14
2004	9	1347680	15.02696	55.118	92.2	36
2004	10	1453705	14.68697	55.201	93	195
2004	11	1515129	14.65624	55.285	93.7	486
2004	12	1680173	14.78353	55.369	94.2	884
2005	1	1892940	14.76532	55.452	94.6	865
2005	2	1678846	14.81772	55.536	95.1	717
2005	3	1687522	14.69913	55.619	95.3	742
2005	4	1275075	14.34711	55.703	95.5	274
2005	5	1202558	14.07434	55.786	95.7	134
2005	6	1115035	13.95454	55.87	95.4	0
2005	7	991671.6	13.91052	55.907	95.2	0
2005	8	1184024	13.16672	55.944	94.9	0
2005	9	1255217	12.98393	55.981	95.6	15
2005	10	1396841	12.88411	56.018	96.2	282
2005	11	1538159	13.01318	56.055	96.8	523
2005	12	1899035	13.60864	56.092	97.1	1007
2006	1	1969411	13.92645	56.129	97.3	700
2006	2	1675640	13.98821	56.166	97.6	820
2006	3	1791833	14.16134	56.203	97.7	618
2006	4	1354171	14.28636	56.24	97.7	198
2006	5	1327309	14.44059	56.277	97.8	162
2006	6	1349379	14.3561	56.314	97.8	8
2006	7	1137439	14.35073	56.276	97.8	0
2006	8	1205260	15.00586	56.239	97.9	0
2006	9	1182630	15.36163	56.201	97.9	92
2006	10	1510303	15.31471	56.164	97.9	375
2006	11	1576651	14.65405	56.126	98	529
2006	12	1560511	14.18548	56.089	98.3	734
2007	1	1778746	13.16921	56.051	98.7	867
2007	2	1739441	12.62858	56.014	99.1	1039
2007	3	1486048	12.2443	55.976	99.5	420
2007	4	1331945	11.84486	55.939	99.9	386
2007	5	1164495	11.59891	55.901	100.3	61

2007	6	1041480	11.22322	55.864	100.3	3
2007	7	1036673	11.07523	55.713	100.4	0
2007	8	1093984	10.89313	55.562	100.4	0
2007	9	1213292	11.215	55.412	100.3	16
2007	10	1452097	10.80393	55.261	100.3	175
2007	11	1680918	10.98275	55.11	100.2	591
2007	12	1816961	10.80879	54.959	100.11	778
2008	1	2125293	11.30923	54.809	100	999
2008	2	1990319	10.75684	54.658	100	846
2008	3	1831900	10.48115	54.507	99.4	638
2008	4	1757935	10.64784	54.356	98.9	309
2008	5	1426713	10.59262	54.206	98.3	145
2008	6	1340655	10.85198	54.055	97.2	1
2008	7	1367381	10.94029	53.514	96	0
2008	8	1332678	11.02926	52.972	94.9	0
2008	9	1402372	10.84197	52.431	93.6	10
2008	10	1307211	11.33417	51.89	92.3	301
2008	11	1194327	11.58043	51.348	91.1	669
2008	12	1230310	11.96309	50.807	89.2	909
2009	1	1280986	12.08258	50.266	87.2	1110
2009	2	1404633	13.46754	49.725	85.3	772
2009	3	1395516	14.38135	49.183	84.6	523
2009	4	1193714	14.38361	48.642	83.8	310
2009	5	1032984	14.61368	48.101	83	88
2009	6	1004240	14.09028	47.559	83.5	12
2009	7	1032078	13.79402	47.467	84	4
2009	8	1051325	13.51373	47.375	84.5	6
2009	9	1157553	13.15463	47.283	84.9	35
2009	10	1227344	12.70119	47.191	85.3	371
2009	11	1415671	11.97755	47.099	85.7	508
2009	12	1646793	10.95043	47.007	86	930
2010	1	1777563	9.522837	46.915	86.2	1130
2010	2	1617671	8.211536	46.823	86.5	989
2010	3	1513407	7.761208	46.731	87.1	557
2010	4	1333802	7.38928	46.639	87.7	188
2010	5	1212720	7.24403	46.547	88.4	65
2010	6	1215870	6.909468	46.454	89	0
2010	7	1155305	6.713682	46.49	89.7	0
2010	8	1195775	6.48829	46.525	90.4	0
2010	9	1055899	6.63015	46.561	90.7	33
2010	10	1348658	6.739436	46.596	91.1	241
2010	11	1234129	6.847351	46.631	91.5	551
2010	12	1749607	7.352551	46.667	91.4	1143
2011	1	1764179	7.673335	46.702	91.4	1134
2011	2	1488319	7.929107	46.737	91.3	743
2011	3	1495255	7.918956	46.773	91.3	595
2011	4	1251894	7.859922	46.808	91.2	217

2011	5	1317613	7.837693	46.843	91.1	156
2011	6	1224422	7.944458	46.879	91.7	1
2011	7	1124333	7.913776	47.029	92.3	0
2011	8	1326226	7.9174	47.18	92.8	0
2011	9	1124902	7.852144	47.331	93.2	99
2011	10	1236577	7.808897	47.481	93.6	336
2011	11	1321377	7.841409	47.632	94	459
2011	12	1534172	7.491285	47.783	94.4	733
2012	1	1572378	6.252452	47.933	94.9	1031
2012	2	1460345	6.138058	48.084	95.3	941
2012	3	1407415	6.029134	48.235	95.7	708
2012	4	1329699	5.915122	48.385	96.1	457
2012	5	1299543	5.806294	48.536	96.4	211
2012	6	1261433	5.687522	48.687	96.8	54
2012	7	1079830	5.746033	48.801	97.3	2
2012	8	1232850	5.799304	48.915	97.7	0
2012	9	1217836	5.857565	49.029	98	8
2012	10	1371973	5.915639	49.143	98.4	124
2012	11	1510744	5.968517	49.257	98.7	367
2012	12	1524294	6.02643	49.371	99	722
2013	1	1833041	6.078893	49.485	99.3	1031
2013	2	1702888	6.13656	49.599	99.6	941
2013	3	1773657	6.194041	49.713	99.8	708
2013	4	1465729	6.25151	49.827	100.1	457
2013	5	1199028	6.308793	49.941	100.3	211
2013	6		6.360585	50.055	100.6	54
2013	7		6.523216	50.162	101	2
2013	8		6.679828	50.269	101.3	0
2013	9		6.83599	50.376	101.6	8
2013	10		6.997517	50.483	102	124
2013	11		7.15265	50.59	102.3	367
2013	12		7.307253	50.697	102.7	722
2014	1		7.461329	50.804	103	1031
2014	2		7.614881	50.911	103.4	941
2014	3		7.774596	51.018	103.8	708
2014	4		7.927226	51.124	104.1	457
2014	5		8.07934	51.231	104.5	211
2014	6		8.237902	51.338	104.8	54
2014	7		8.206419	51.426	105.1	2
2014	8		8.181857	51.513	105.5	0
2014	9		8.150548	51.6	105.8	8
2014	10		8.119344	51.687	106.1	124
2014	11		8.094958	51.774	106.4	367
2014	12		8.063926	51.862	106.6	722
2015	1		8.032998	51.949	106.8	1031
2015	2		8.00209	52.036	107.1	941
2015	3		7.971369	52.123	107.3	708

2015	4 .	7.94075	52.21	107.5	457
2015	5 .	7.91015	52.298	107.7	211
2015	6 .	7.886284	52.385	107.9	54
2015	7 .	7.888714	52.431	108.1	2
2015	8 .	7.891135	52.477	108.4	0
2015	9 .	7.893548	52.522	108.6	8
2015	10 .	7.902479	52.568	108.8	124
2015	11 .	7.904868	52.614	109.1	367
2015	12 .	7.907249	52.66	109.3	722
2016	1 .	7.909539	52.706	109.5	1031
2016	2 .	7.911905	52.752	109.7	941
2016	3 .	7.914262	52.797	109.9	708
2016	4 .	7.923096	52.843	110.1	457
2016	5 .	7.925429	52.889	110.3	211
2016	6 .	7.927755	52.935	110.6	54
2016	7 .	7.930481	52.939	110.8	2
2016	8 .	7.933279	52.942	111	0
2016	9 .	7.942439	52.945	111.2	8
2016	10 .	7.94513	52.949	111.4	124
2016	11 .	7.947893	52.952	111.7	367
2016	12 .	7.950566	52.956	111.9	722
2017	1 .	7.953231	52.959	112.1	1031
2017	2 .	7.955968	52.963	112.3	941
2017	3 .	7.958615	52.966	112.4	708
2017	4 .	7.967659	52.97	112.6	457
2017	5 .	7.970361	52.973	112.8	211
2017	6 .	7.972975	52.977	113	54
2017	7 .	7.960208	52.973	113.1	2
2017	8 .	7.95384	52.969	113.3	0
2017	9 .	7.941134	52.966	113.4	8
2017	10 .	7.928469	52.962	113.6	124
2017	11 .	7.915844	52.958	113.7	367
2017	12 .	7.903259	52.954	113.9	722
2018	1 .	7.890714	52.95	114.1	1031
2018	2 .	7.878209	52.947	114.2	941
2018	3 .	7.865744	52.943	114.4	708
2018	4 .	7.859526	52.939	114.5	457
2018	5 .	7.847119	52.935	114.7	211
2018	6 .	7.834752	52.931	114.9	54
2018	7 .	7.822423	52.934	115	2
2018	8 .	7.810134	52.937	115.2	0
2018	9 .	7.804003	52.939	115.4	8
2018	10 .	7.791771	52.942	115.5	124
2018	11 .	7.78567	52.944	115.7	367
2018	12 .	7.773495	52.947	115.9	722
2019	1 .	7.761358	52.95	116.2	1031
2019	2 .	7.74926	52.952	116.4	941

2019	3 .	7.737198	52.955	116.6	708
2019	4 .	7.731182	52.957	116.8	457
2019	5 .	7.719177	52.96	117.1	211
2019	6 .	7.707209	52.962	117.3	54
2019	7 .	7.701239	52.948	117.5	2
2019	8 .	7.689327	52.933	117.8	0
2019	9 .	7.677452	52.918	118	8
2019	10 .	7.671528	52.904	118.2	124
2019	11 .	7.659707	52.889	118.4	367
2019	12 .	7.647923	52.874	118.6	722
2020	1 .	7.636175	52.86	118.8	1031
2020	2 .	7.624463	52.845	119.1	941
2020	3 .	7.612787	52.831	119.3	708
2020	4 .	7.606963	52.816	119.5	457
2020	5 .	7.59534	52.801	119.7	211
2020	6 .	7.583753	52.787	120	54
2020	7 .	7.577973	52.779	120.2	2
2020	8 .	7.566438	52.771	120.4	0
2020	9 .	7.554939	52.763	120.6	8
2020	10 .	7.549203	52.755	120.8	124
2020	11 .	7.537756	52.747	121.1	367
2020	12 .	7.532045	52.739	121.3	722
2021	1 .	7.514966	52.731	121.5	1031
2021	2 .	7.503623	52.723	121.8	941
2021	3 .	7.492313	52.715	121.9	708
2021	4 .	7.481038	52.707	122.1	457
2021	5 .	7.475414	52.699	122.3	211
2021	6 .	7.464189	52.691	122.5	54
2021	7 .	7.452999	52.684	122.7	2
2021	8 .	7.441841	52.678	122.9	0
2021	9 .	7.430717	52.672	123.1	8
2021	10 .	7.419627	52.665	123.3	124
2021	11 .	7.414094	52.659	123.5	367
2021	12 .	7.403053	52.653	123.7	722
2022	1 .	7.392045	52.647	123.9	1031
2022	2 .	7.375593	52.64	124.2	941
2022	3 .	7.370126	52.634	124.4	708
2022	4 .	7.359215	52.628	124.7	457
2022	5 .	7.348337	52.621	125	211
2022	6 .	7.337491	52.615	125.2	54
2022	7 .	7.326676	52.607	125.5	2
2022	8 .	7.315894	52.599	125.7	0
2022	9 .	7.310515	52.591	126	8
2022	10 .	7.29978	52.582	126.3	124
2022	11 .	7.289076	52.574	126.5	367
2022	12 .	7.278404	52.566	126.8	722

KY PSC Case No. 2013-00167  
Response to AG's Data Request Set One No. 057  
Respondent: William J. Gresham

**COLUMBIA GAS OF KENTUCKY, INC.  
RESPONSE TO ATTORNEY GENERAL'S FIRST  
REQUEST FOR INFORMATION  
DATED JULY 19, 2013**

57. Reference page 8 of Mr. Gresham's testimony. Why does Columbia use a 20 year "normal weather" average instead of the 35 years variable that the witness identifies at line 35?

**Response:** Please see Columbia's response to Staff's Data Request Set Two No. 021.

KY PSC Case No. 2013-00167  
Response to AG's Data Request Set One No. 058  
Respondent: William J. Gresham

**COLUMBIA GAS OF KENTUCKY, INC.  
RESPONSE TO ATTORNEY GENERAL'S FIRST  
REQUEST FOR INFORMATION  
DATED JULY 19, 2013**

58. Reference page 8 of Mr. Gresham's testimony. Provide all data that the company references at lines 10 through 14 concerning the end use energy efficiency measures.

**Response:**

Please see Columbia's response to AG data request number 1-156.



**COLUMBIA GAS OF KENTUCKY, INC.  
 RESPONSE TO ATTORNEY GENERAL'S FIRST  
 REQUEST FOR INFORMATION  
 DATED JULY 19, 2013**

59. Reference page 9 of Mr. Gresham's testimony. Provide the forecasting modeling results for the residential and commercial classes for each of the past six years prior to the year when the actual results became available.

**Response:**

The tables below are expanded versions of those on page 9 of the testimony.

**Columbia Gas of Kentucky - Residential MMCF Forecast Performance**

	Annual MMCF	Year 1 Forecast	Year 2 Forecast	Difference Year 1 Forecast	Difference Year 2 Forecast	Difference Year 1 Forecast	Difference Year 2 Forecast
2007	9,178	9,128					
2008	9,130	9,228	8,835	98	-295	1.1%	-3.2%
2009	8,849	8,856	8,999	7	150	0.1%	1.7%
2010	8,673	8,913	8,710	240	37	2.8%	0.4%
2011	8,793	8,496	8,647	-297	-146	-3.4%	-1.7%
2012	8,265	8,516	8,307	251	42	3.0%	0.5%
Average	8,815	8,856	8,700	60	-42	0.7%	-0.5%

**Columbia Gas of Kentucky - Commercial MMCF Forecast Performance**

	Annual MMCF	Year 1 Forecast	Year 2 Forecast	Difference Year 1 Forecast	Difference Year 2 Forecast	Difference Year 1 Forecast	Difference Year 2 Forecast
2007	7,617	7,494					
2008	7,670	7,593	7,155	-77	-515	-1.0%	-6.7%
2009	7,694	7,525	7,675	-169	-19	-2.2%	-0.3%
2010	7,595	7,981	7,459	386	-136	5.1%	-1.8%
2011	7,534	7,398	7,986	-136	452	-1.8%	6.0%
2012	7,662	7,720	7,301	58	-361	0.8%	-4.7%
Average	7,629	7,619	7,515	12	-116	0.2%	-1.5%

**COLUMBIA GAS OF KENTUCKY, INC.  
RESPONSE TO ATTORNEY GENERAL'S FIRST  
REQUEST FOR INFORMATION  
DATED JULY 19, 2013**

60. Reference page 9 of Mr. Gresham's testimony. Provide the actual usage data results for the residential and commercial classes for each of the past five years.

**Response:**

Actual usage data results for the residential and commercial classes for each of the past five years are as follows:

**Columbia Gas of Kentucky  
Actual Consumption in MMCF**

	Residential	Commercial
2008	9,374	7,802
2009	8,848	7,673
2010	9,128	7,926
2011	8,879	7,608
2012	7,183	6,969

**COLUMBIA GAS OF KENTUCKY, INC.  
RESPONSE TO ATTORNEY GENERAL'S FIRST  
REQUEST FOR INFORMATION  
DATED JULY 19, 2013**

61. Reference page 12 of Mr. Gresham's testimony. Is the witness aware of the fact that Kentucky's electricity generation is composed of approximately 90% coal-fired based? If yes, is the witness also aware of the fact that the electricity rates are trending upwardly because of environmental compliance costs?

**Response:**

While the witness is not familiar with the percent of Kentucky electricity generation that is coal-fired, he is aware that environmental compliance costs are increasing for many utilities. He also is aware that the U.S. Energy Information Administration reports that Kentucky has the fourth lowest electricity rates of the 50 States and the District of Columbia, EIA Report "State Electricity Profiles", January 2012.

**COLUMBIA GAS OF KENTUCKY, INC.  
RESPONSE TO ATTORNEY GENERAL'S FIRST  
REQUEST FOR INFORMATION  
DATED JULY 19, 2013**

62. Reference page 6 of Mr. Katko's testimony.
- a. Provide the names, positions, titles, and company affiliation of each member of the NiSource Gas Distribution ("NGD") business unit.
  - b. Is any Columbia representative allowed to provide any guidance in the decision making process of NiSource Gas Distribution ("NGD") business unit? If not, why not. If yes, explain in detail how and what is presented.
  - c. Does any Columbia representative vote or otherwise participate in the ultimate decision making process of the NiSource Gas Distribution ("NGD") business unit? If not, why not. If yes, explain in detail how.

**Response:**

- a. The NiSource Gas Distribution ("NGD") business unit includes more than 2,500 employees of six local gas distribution companies, including Columbia. It is led by five leadership positions, each of whom are

employed by NiSource Corporate Service Company ("NCSC"): Joseph Hamrock – Executive Vice President and Group Chief Executive Officer; David Monte – Chief Operating Officer; John Partridge – Chief Regulatory Officer; and Stanley Sagun – Senior Vice President, Chief Commercial Officer and Chief Financial Officer. These individuals and their direct reports, who are employees of NCSC and the local distribution companies, are responsible for multiple departments entailing every aspect of the gas distribution business. The President of Columbia reports to the NGD Chief Regulatory Officer.

- b. Columbia representatives participate in the overall decision making process of the NGD business unit by advocating for Columbia's interests and perspectives through a wide range of interaction including periodic NGD leadership meetings, regularly scheduled staff meetings, and regular business contacts with other NGD employees at NCSC and other local distribution companies.
- c. Similar to the response to part c, Columbia representatives participate in the NGD decision making process by advocating for Columbia's interests. NGD management evaluates all views and the ultimate decisions are their responsibility.

**COLUMBIA GAS OF KENTUCKY, INC.  
RESPONSE TO ATTORNEY GENERAL'S FIRST  
REQUEST FOR INFORMATION  
DATED JULY 19, 2013**

63. Reference page 6 of Mr. Katko's testimony at line 20. Describe in detail the "strategic planning objectives" noted therein.

**Response:**

Strategic planning objectives refer to results of a process in which NiSource as a corporation identifies potential long-term initiatives and customer-focused programs of its subsidiaries and analyzes them to determine and quantify the financial strategy of the organization. The process includes modeling various planning scenarios and initiatives to understand their financial impact on the overall financial plan. Decisions regarding capital investment and financing mix and costs and identification of various risks are intended byproducts of this work.

A long-range operating plan is produced as a result of this work and serves as the comparative benchmark each period to ensure that the corporation is on track versus the plan. Plan updates are produced periodically to better understand performance versus the operating plan.



**COLUMBIA GAS OF KENTUCKY, INC.  
RESPONSE TO ATTORNEY GENERAL'S FIRST  
REQUEST FOR INFORMATION  
DATED JULY 19, 2013**

64. Reference page 10 of Mr. Katko's testimony. Provide a comprehensive listing of all planning, activities, operations, etc. that are required "under the federally mandated Distribution Integrity Management Program ("DIMP")."
- a. Provide a copy of the document(s) related to the DIMP.
  - b. For each item listed, provide the actual or estimated cost over the next five years broken down by years.

**Response:**

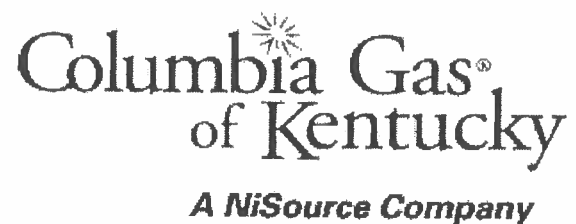
Attachment A is Columbia's Distribution Integrity Management Plan effective January 25, 2013. Please see section 2.1.2 pages 3-4 dealing with the 'Responsibilities of DIMP Coordinator', section 5.0 pages 12-15 dealing with 'Knowledge of the Distribution System', Table A-2 Action Plans to Enhance Knowledge, and Table C-4 Evaluation of Highest Risks.

Mr. Katko's testimony refers to five incremental O&M activities in support of DIMP: (1) additional Compliance Specialist; (2) additional Damage Prevention Coordinator; (3) additional GIS Technician; (4) additional Regulator and Right of Way clearing and, (5) additional Public Awareness spending.

The additional Compliance Specialist position is being added to support the increased data gathering and analysis required with the DIMP Coordinator responsibilities (section 2.1.2 pages 3-4). The Damage Prevention Coordinator, additional Public Awareness spending, and additional spending for Regulator Station/Right of Way clearing are designed to address excavation damage which is a top pipeline safety risk identified in DIMP (Table C-4). The GIS Technician is being added to meet requirements of DIMP associated with enhancing system knowledge (section 5.0 pages 12-15, Table A-2).

Attachment B represents these additional DIMP related expenses broken down by year over the next five years.

Columbia's DIMP references many historical operational and maintenance activities associated with improving pipeline safety and addressing threats to Columbia's distribution system. Many of these O&M activities are also requirements of long standing federal and state pipeline safety regulations and costs are included in base rates. The above referenced costs are incremental DIMP expenditures.



# DISTRIBUTION INTEGRITY MANAGEMENT PLAN

Effective: January 25, 2013

## TABLE OF CONTENTS

<b>1.0</b>	<b>Purpose and Scope.....</b>	<b>1</b>
<b>2.0</b>	<b>Administration.....</b>	<b>3</b>
2.1	Responsibilities.....	3
2.2	Plan Revision Process.....	5
<b>3.0</b>	<b>Definitions.....</b>	<b>9</b>
<b>4.0</b>	<b>Recordkeeping.....</b>	<b>11</b>
<b>5.0</b>	<b>Knowledge of Distribution System.....</b>	<b>12</b>
5.1	Type and Location of Records.....	12
5.2	Additional Information Needed.....	13
5.3	Data Captured For Newly Installed Piping.....	14
5.4	Data QA/QC.....	15
5.5	Knowledge Capture – Subject Matter Experts.....	15
<b>6.0</b>	<b>Threat Identification.....</b>	<b>18</b>
6.1	Threat Categories.....	18
6.2	System Segmentation.....	23
6.3	DIMP Steering Team Analysis.....	24
<b>7.0</b>	<b>Risk Evaluation and Ranking.....</b>	<b>27</b>
7.1	System Level Risk Evaluation.....	27
7.2	Segment Level Risk Evaluation.....	30
<b>8.0</b>	<b>Implementation of Measures to Address Risk.....</b>	<b>33</b>
8.1	Leak Management Program.....	33
8.2	Other Programs to Address Risk.....	35
8.3	Implementing Additional or Accelerated Actions (A/A) Based on Risk.....	53
<b>9.0</b>	<b>Measurement of Performance, Monitoring Results, and Evaluating Effectiveness.....</b>	<b>55</b>
9.1	Performance Measures.....	55
9.2	Monitoring Results and Evaluating Effectiveness.....	56
<b>10.0</b>	<b>Periodic Evaluation and Improvement.....</b>	<b>58</b>
10.1	DIMP Steering Team Review.....	58
10.2	DIMP SMR Team Review.....	61
<b>Appendix A: Knowledge of Distribution System</b>		
<b>Appendix B: Threat Identification</b>		
<b>Appendix C: Risk Evaluation and Ranking</b>		
<b>Appendix D: Implementation of Measures to Address Risk</b>		
<b>Appendix E: Measurement of Performance, Monitoring Results and Evaluating Effectiveness</b>		
<b>Appendix F: Administrative Items</b>		

## 1.0 PURPOSE AND SCOPE

The U.S. Department of Transportation Pipeline and Hazardous Materials Safety Administration (PHMSA) amended the Federal Pipeline Safety Regulations, Code of Federal Regulations (CFR 49) § 192, on December 4, 2009. A new subpart, Subpart P "*Gas Distribution Pipeline Integrity Management*", was created to require operators of gas distribution pipelines to develop and implement a gas distribution integrity management program (DIMP) that includes a written integrity management plan.

The purpose of the program is to enhance safety by identifying and reducing gas distribution pipeline integrity risks. The rule requires that operators identify risks to their pipelines where an incident could cause serious consequences and focus priority attention in those areas. The rule also requires that operators implement a program to provide greater assurance of the integrity of their pipeline.

The DIMP approach was designed to promote continuous improvement in pipeline safety by requiring operators to identify and implement appropriate risk control measures.

This written DIMP Plan addresses the Rule which requires operators to develop and implement a program that addresses the following elements:

- (a) Knowledge of Distribution System,
- (b) Threat Identification,
- (c) Risk Evaluation and Ranking,
- (d) Implementation of Measures to Address Risk,
- (e) Measurement of Performance, Monitoring Results, and Evaluating Effectiveness,
- (f) Periodic Evaluation and Improvement, and
- (g) Reporting Results.

Because of the significant diversity among distribution pipeline operators and pipelines, the requirements in the Rule are high-level and performance-based. The Rule specifies the required program elements but does not prescribe specific methods of implementation.

Managing the integrity and reliability of gas distribution pipelines has always been a primary goal for the Company, with design, construction, operations and maintenance activities performed in compliance with CFR 49 § 192 requirements. The objective of

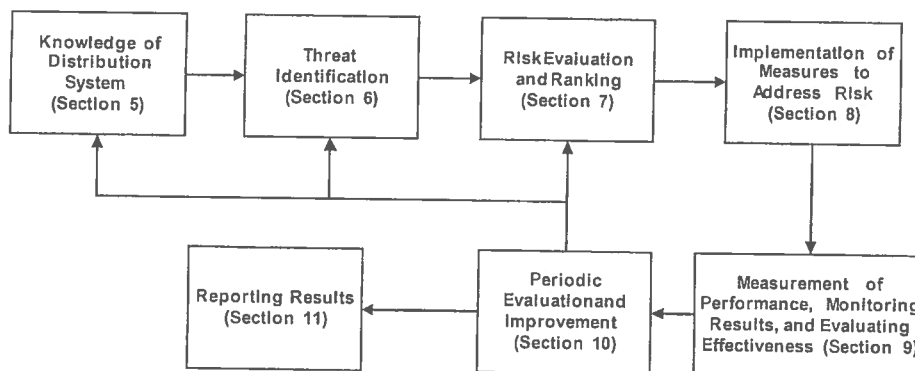
this DIMP Plan is to establish the requirements to comply with Subpart P sections §§ 192.1001, 192.1003, 192.1005, 192.1007, 192.1009 and 192.1011, pertaining to integrity management for gas distribution pipelines. This DIMP Plan does not address how the Company may deviate from the required periodic inspections as provided for in §192.1013.

This written DIMP Plan applies to all gas distribution pipelines operated by the Company, including those which may transport natural gas, natural gas supplemented with (vaporized) LNG or (vaporized) LPG, or propane. Pipelines include the associated mains, services, service regulators, customer meters, valves and other appurtenances attached to the pipe such as metering stations, regulator stations, and fabricated assemblies. The elements, details, actions, descriptions and explanations in this plan pertain to all facilities listed above unless explicitly stated otherwise. Threat and risk differences for facilities carrying different commodities may exist to some extent and will be addressed as appropriate.

This plan is not intended to pertain to the Company's transmission pipelines.

The DIMP Plan is comprised of seven elements as depicted in Figure 1-1.

**FIGURE 1-1: DIMP Elements**



## **2.0 ADMINISTRATION**

This section describes how the DIMP Program, including the DIMP written plan, is to be maintained and updated and summarizes the responsibilities of various groups.

### **2.1 RESPONSIBILITIES**

The purpose of this section is to assign specific roles and responsibilities within the organization. The scope of the Program is expansive, with involvement and coordination of multiple disciplines. As a result, several groups have defined responsibilities in carrying out the duties and tasks associated with the Program. Table F-1 "Company Personnel and DIMP Roles" within Appendix F lists Company personnel having responsibilities defined within this Section.

#### **2.1.1 Management Support**

The Company is committed to implementing the elements of this Plan in order to ensure the continued safety and reliability of its distribution system. The Vice President of Pipeline Safety has the responsibility for the administration and strategies of this Plan. The General Manager of Operations has the overall responsibility for implementing the elements of the plan and ensuring the compliance with the plans and procedures associated with this program. Company Management will commit appropriate personnel, funding and other resources as necessary to successfully execute this Plan. Notwithstanding the responsibilities assigned in the following Sections, Company Management is ultimately responsible for ensuring the establishment and application of this Plan in accordance with applicable regulations.

#### **2.1.2 DIMP Coordinator**

The "DIMP Coordinator" is the term used to describe the individual responsible for providing for the implementation of the Program in accordance with the requirements of the written plan. The job position assigned this functional title is the Compliance Manager.

Included in the responsibilities of the DIMP Coordinator are the following:

- (a) Ensure periodic evaluations are completed and documented in accordance with Section 10,

- (b) Participate in the DIMP SMR process (Refer to Section 2.1.4), and
- (c) Submit the DIMP plan to state commissions upon request.

### **2.1.3 DIMP Steering Team**

The DIMP Steering Team is a state-level team of subject matter experts, chaired by the General Manager or designee, which meet on a periodic basis to evaluate the effectiveness of the Program and update as needed. The DIMP Steering Team includes designated representatives from the following groups:

- (a) Operations Center leadership,
- (b) System Operations leadership,
- (c) Field Engineering leadership,
- (d) Compliance Management,
- (e) Damage Prevention,
- (f) Communications,
- (g) Pipeline Safety and Compliance, and
- (h) Other personnel that may provide significant input.

The qualifications of the Steering Team members are to be documented and retained.

### **2.1.4 DIMP SMR Team**

A team of subject matter representatives (SMR) has been established to be responsible for the maintenance of the Integrity Management written plan. This is a NiSource Gas Distribution team which is comprised of employees with experiences from various stakeholder departments such as System Operations, Field Engineering, Compliance, Pipeline Safety and Compliance, and Field Operations. The makeup of the team is maintained by the Manager of Distribution Integrity Management Program and is approved by the General Managers and Vice President of Engineering. Specific responsibilities of this team include the following:

- (a) Contribute to Program enhancements through the sharing of knowledge and best practices,
- (b) Review changes in the written plan in accordance with the gas standard revision process described in section 2.2 below,



- (c) Ensure proposed changes reflect the input of the designated departments of which they are representing, and
- (d) Ensure periodic evaluations are completed and documented in accordance with section 10.

### **2.1.5 Program Administration**

The Manager of Distribution Integrity Management Program and, as delegated, the Integrity Management Engineer are assigned the following specific tasks:

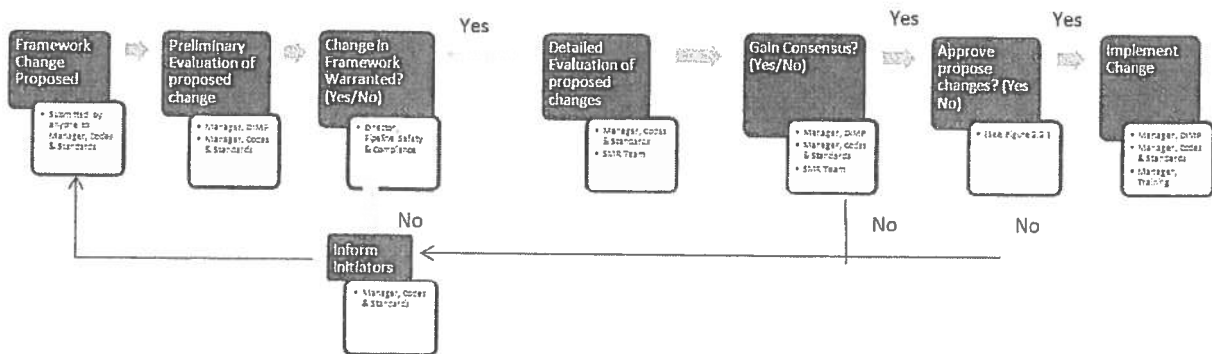
- (a) Perform periodic review of plan to identify editorial changes,
- (b) Ensure DIMP Plan is revised in a timely fashion and the revisions are posted and communicated to the appropriate personnel,
- (c) Maintain record of changes to plan,
- (d) Ensure the DIMP Plan is compliant with § 192, Subpart P requirements and associated state commission expectations,
- (e) Verify DIMP Plan is implemented according to provisions and requirements within the plan,
- (f) Maintain engagement with industry peers and organizations to identify best practices within the industry,
- (g) Monitor regulatory activity and changes in regulation which could precipitate the need to modify the Program,
- (h) Ensure records listed within Section 4 are properly maintained,
- (i) Participate in periodic effectiveness reviews and complete program re-evaluations, and
- (j) Submit Annual DOT Report to PHMSA and the state commission.

## **2.2 PLAN REVISION PROCESS**

### **2.2.1 Revision Process for “Framework”**

The “framework” is considered to be all portions of the DIMP plan with the exception of the appendices. The framework is considered a gas standard and is subject to the same revision process as other compliance plans and gas standards. This process is summarized in Figure 2-1 below.

Figure 2-1 Framework Revision Process



The Standards Evaluation and Approval System, accessed via the Gas Standards webpage on the intranet, is used to document the impact analysis of the proposed changes. This system is also used to facilitate and document revision approvals.

The approval level of new or revised language in the Plan is dependent upon the level of impact of the recommended change. Impact level is based on a number of factors including, but not limited to, regulatory compliance, training, retooling, and material changes. Figure 2-2 provides guidance for each category with the assigned approval level.

Upon revision of the DIMP plan, an e-mail will be routed from the Gas Standards mailbox to all impacted employees. The e-mail will include either the revised plan or a link to the location on the Company intranet where the plan can be downloaded. The e-mail will also include a document which summarizes the changes, discusses implementation issues, and addresses specific impacts, e.g., training or OQ implications. The Manager of Distribution Integrity Management Program, or designee, will assess if the nature of the revision, requires a more extensive communication effort and, if required, will partner with internal groups to establish a communication plan.

The revised plan is posted to the Company intranet where it is accessible to all employees.

**FIGURE 2-2: Revision Approval Levels for the Framework**

Status	Guidance	Approval Level
<b>No Impact</b>	Editorial only, no change to context of DIMP Plan. Change would not require a new effective date.  Examples include the following: <ul style="list-style-type: none"> <li>• Two words run together and needs a space</li> <li>• Format change is desired such as moving a table from right centered to left centered</li> </ul>	Gas Standards Staff  Director, Pipeline Safety and Compliance
<b>Minimal</b>	Change in the DIMP Plan that results in minimal impact to work practice or process and requires a change in the effective date. Typically requires minimal implementation such as only communicating the change to affected personnel.  Examples include the following: <ul style="list-style-type: none"> <li>• A change in a Commission contact name and/or phone number</li> <li>• Guidance added to provide clarity but does not change intent</li> </ul>	Manager, Gas Standards  Director, Pipeline Safety and Compliance
<b>Moderate</b>	Change in the DIMP Plan that results in a moderate impact to work practice or process.  Examples include the following: <ul style="list-style-type: none"> <li>• Requires programming change to the Company's work management system</li> <li>• Change in existing pipeline safety regulations that require new work practices</li> </ul>	Director, Pipeline Safety & Compliance
<b>Significant</b>	Change in the DIMP Plan that results in a significant impact to work practice or process.  Examples include the following: <ul style="list-style-type: none"> <li>• Large work force to be trained/qualified</li> <li>• Significant implementation impact to operating group</li> </ul>	General Manager(s) and Vice President of Engineering & Construction  Vice President of Pipeline Safety & Compliance

## 2.2.2 Revision Process for Appendices

The approval level of a revised appendix is dependent upon the level of impact of the recommended change. Figure 2-3 provides guidance for each category with the assigned approval level.

Upon revision of the appendix, an e-mail will be routed from the Gas Standards mailbox to all impacted employees. The e-mail will include either the revision or a link to the location on the Company intranet where the plan can be downloaded. The e-mail will also summarize the changes, discuss implementation issues, and address specific impacts, e.g., training or OQ implications. The Manager, Distribution Integrity Management Program, or designee, will determine if the nature of the revision requires a more extensive communication effort and, if required, will work with internal groups to establish a communication plan.

**FIGURE 2-3: Revision Approval Levels for Appendices**

Status	Guidance	Approval Level
<b>No Impact</b>	Editorial only, no change to context. Examples include the following: <ul style="list-style-type: none"> <li>• Correcting spelling errors</li> <li>• Changes in job titles</li> <li>• Populated year-end leakage data in table</li> </ul>	Manager, DIMP or Integrity Management Engineer
<b>Impactful (Minimal to Significant)</b>	Change in the DIMP Plan that results in some level of impact to work practice or process. Examples include the following: <ul style="list-style-type: none"> <li>• Addition of new A/A measure</li> <li>• Change in risk score</li> </ul>	DIMP Steering Team

### 3.0 DEFINITIONS

DIMP	Distribution Integrity Management Program
EFV	Excess Flow Valve. An Excess Flow Valve is a safety device that is designed to shut off, or significantly restrict, flow of natural gas automatically if the service line breaks.
Excavation Damage	Any impact that results in the need to repair or replace an underground facility due to a weakening, or the partial or complete destruction of the facility, including, but not limited to, the protective coating, lateral support, cathodic protection or the housing for the line device or facility.
Excavation Ticket	A notification from the one-call notification center to the operator providing information of pending excavation activity for which the Company is to locate and mark facilities.
Hazardous Leak	A leak that represents an existing or probable hazard to persons or property and requires immediate repair or continuous action until the conditions are no longer hazardous. For the Company, a hazardous leak is synonymous with a Grade 1 leak.
Integrity Management Plan	A written explanation of the mechanisms or procedures the Company will use to implement the integrity management program and to ensure compliance with 49 CFR § 192. Subpart P.
Integrity Management Program	The overall approach by the Company operator to ensure the integrity of the gas distribution system.
Mechanical Fitting	A mechanical device used to connect sections of pipe. The term applies only to: (1) stab type fittings, (2) nut follower type fittings, (3) bolted type fittings, or (4) other compression type fittings.

NTSB

National Transportation Safety Board

PHMSA

The U.S. Department of Transportation Pipeline and Hazardous Materials Safety Administration.

SME

SME, or subject matter experts, are persons knowledgeable about design, construction, operations, or maintenance activities, or the system characteristics of a particular distribution system. Designation as an SME does not necessarily require specialized education or advanced qualifications. Some SMEs may possess these characteristics, but detailed knowledge of the pipeline system gained by working with it over time can also make someone an SME. SMEs may be employees, consultants or contractors, or any appropriate combination.

## 4.0 RECORDKEEPING

The Company shall maintain records needed to demonstrate compliance with 49 CFR, § 192, Subpart P, "Gas Distribution Pipeline Integrity Management". These records are to be retained for a minimum of ten calendar years from the time in which they are produced. These records are described in Table 4-1 below.

**TABLE 4-1: DIMP Program Records**

Program Element	Record*	Retention Responsibility	Location
General	Current IM Plan	Manager, DIMP	Intranet
General	Superseded versions of DIMP Plan	Manager, DIMP	Network drive
General	Summary of plan revisions	Manager, DIMP	Network drive
General	Current referenced gas standards	Manager, DIMP	Intranet
General	Superseded versions of reference gas standards	Manager, DIMP	Network drive
General	Steering Team Qualifications	Compliance Manager	Network drive
System Knowledge	Completed forms – Form DIMP 5-1 (xx/xx)	Manager, DIMP	Network drive
System Knowledge	Annual DOT Reports	Manager, DIMP	Intranet
System Knowledge	DOT Incident Reports	Compliance Manager	Network drive
System Knowledge	Safety-Related Condition Reports	Compliance Manager	Network drive
Risk Evaluation	Optimain Project Listing	Field Engineering	Network drive
Periodic Evaluation	Form DIMP 10-1(xx/xx)	Compliance Manager (Steering Team Review); Manager, DIMP (SMR Team Review)	Network drive

*\*Source documents contributing to the compilation of the records listed above are maintained according to the Company's record retention policy.*

## 5.0 KNOWLEDGE OF DISTRIBUTION SYSTEM

This section describes the process to assemble as complete of an understanding as possible of the Company's infrastructure using reasonably available information from past and ongoing design, installation, operations and maintenance activities.

In order to determine threats and assess risks on its distribution system, the Company begins by collecting appropriate information about its facilities and environment. The information is found in two general categories: the physical make up of system components and the operating and maintenance history of those components. Knowledge of the distribution system will enable the Company to identify threats and determine which facilities or groups of facilities should be subject to risk evaluation.

The Company will use the best information available to make decisions about the existing system. In some cases, the Company may be unable to determine the materials or characteristics of some of the components in the system. This may be due to lost records, systems gained through mergers or acquisitions without complete records, or other reasons. For example, the year of installation might be used to make assumptions about piping material, joint type, coating type, or repair methods.

Data collected on piping and appurtenances installed within the Company's distribution system after the effective date of this Plan include the location where it is installed and its material of construction.

### 5.1 TYPE AND LOCATION OF RECORDS

A summary of the existing records that are utilized by the DIMP Program and where they are located shall be documented in Appendix A "Knowledge of Distribution System." This may include, but is not limited to, documents indicating pipe type (main and service lines), miles of main, number of service lines, incident and leak history, corrosion control records, continuing surveillance records, patrolling records, maintenance history and excavation damage experience. In addition to the Company's annual distribution report (PHMSA F7100.1-1), the following is a summary of records contained in Appendix A.

Figure A-1: Annual DOT Report for Gas Distribution Systems

Table A-1: Program Records Summary

Table A-2: Action Plans to Enhance Knowledge



Table A-3: Summary of System Design by Pressure

Table A-4: Summary of Systems Transporting Gas Other Than Natural Gas

Table A-5: Summary of Known Construction Practices

Table A-6: Known District Regulators and Relief Valves

Table A-7: Known Service Regulators

Table A-8: Areas Subject to Seismic Damage

Table A-9: Areas Subject to Frost Heave

Table A-10: Known Areas Subject to Historical Land Movement/Erosion Damage

Table A-11: Reportable Gas Incidents Summary by Year

Table A-12: Reportable Gas Incidents by Cause

Table A-13: Number of Leaks Eliminated/Repaired

Table A-14: Leak Incidence Rates – Eliminated/Repaired Leaks

Existing and new data is maintained in at least one of the Company record systems (e.g., maps, paper forms, work management system, other electronic data bases or files, photographs) or in the knowledge and experience of personnel who design, construct, operate and maintain the infrastructure. Initially, the data will be assembled either at the state or operating center. It is not the intent of this Plan to duplicate the recording of data.

## **5.2 ADDITIONAL INFORMATION NEEDED**

When analysis and threat assessment indicate that additional infrastructure information may be necessary, the Company will determine at that time the specific data needed. Such determination may be triggered by the desire to perform a more focused threat and risk analysis, an indication that a different grouping of segments would provide better understanding of risk, or indications that more information is required to evaluate future potential threats or other currently unforeseen reasons.

Except in unusual cases, the identified additional information will be gathered through normal activities. In order to accomplish this, one or more of the following steps may be implemented.

- (a) Forms or other methods used to collect information related to the physical attributes and/or operating and maintenance activities of distribution pipeline facilities are appropriately modified,
- (b) Personnel are trained to properly collect and record the expanded information and use the modified forms or data collection format,
- (c) Recordkeeping procedures and/or data management systems are updated to accept new data points, and
- (d) Newly collected information is integrated into all other records.

New collection activities will be evaluated only when the existing procedures are not adequate.

### **5.3 DATA CAPTURED FOR NEWLY INSTALLED PIPING**

Data captured and retained for newly installed pipelines is recorded in the Company's work management system and operating maps. This includes the location where the pipe and appurtenances are installed (e.g., county, city, street) and the material type of which the pipe and appurtenances are constructed (e.g., plastic, steel).

In accordance with the Company's capital job order process, data recorded for newly installed pipelines shall include:

- (a) Material component (e.g., pipe, valve, fitting),
- (b) Material type (e.g., steel, plastic), and
- (c) Location (e.g., County, City, Street).

Other data that may be recorded, depending upon the type of component, include:

- (a) Diameter,
- (b) Pipe wall thickness,
- (c) Pipe grade,
- (d) Manufacturer,
- (e) Person conducting pressure test,

- (f) Test pressure,
- (g) Test duration,
- (h) Quantity, and
- (i) In-Service date.

#### **5.4 DATA QA/QC**

The Company has in place processes for ensuring accuracy of key data. Gas Standard GS 2610.040 "Map Revision" describes the system by which company maps are updated when operating personnel discover incorrect or missing plant piping information, such as location of piping facilities, pressure designation, pipe lengths, size, material, or corrosion control data. Changes or correction to base map information such as street/road name changes, relative location, or vacated streets/roads can also be made in accordance with this process. The Leakage Survey Quality Assurance Program described in Section 8.2.5.3 of this plan provides a means by which a sampling of leakage data is scrutinized to verify data fields are completed in accordance with established protocols.

#### **5.5 KNOWLEDGE CAPTURE – SUBJECT MATTER EXPERTS**

Company operations, maintenance, or engineering personnel may be aware of information pertaining to existing or potential threats that is not easily deduced from Company records. Potential threats or pipeline safety concerns may be discovered by these personnel. Where such information warrants consideration by DIMP personnel, Form DIMP 5-1, shown in Figure 5-1, may be used.

When Form DIMP 5-1 is completed, the first section shall be completed by a member of the DIMP Steering Team and shall thoroughly describe the nature of the issue and any individuals with contributing knowledge. The form is to be routed to the DIMP Coordinator who considers the urgency of the matter and either adds the issue to the next scheduled DIMP Steering Team meeting or, for more urgent matters, schedules a more prompt meeting with the DIMP Steering Team. The second section is also to be completed by a member of the DIMP Steering Team and shall indicate Team comments and further actions needed, based on a consensus reached during the meeting. The third section of the form is to document resolution of required further actions. The Integrity Management Engineer will list all further actions identified from section two. As the actions are

completed, the Integrity Engineer will populate the completion. The Manager of Distribution Integrity Management Program is responsible for ensuring completed forms are retained. All forms in which the "status" field is listed as "In Progress" are to be reviewed during the annual DIMP Steering Team meeting to ensure sufficient progress is being made in resolving outstanding items.

**FIGURE 5-1: Knowledge Capture – Threat Evaluation Form**

<b>SME KNOWLEDGE CAPTURE &amp; THREAT EVALUATION</b>	
	Status: <input style="width: 50px;" type="text"/>
<b>SECTION 1 – IDENTIFICATION OF POTENTIAL THREAT</b>	
<i>Instructions: This section is to be completed by a member of the DIMP Steering Team. Describe the issue below. If the information was identified by others, include the name and job title of any contributing personnel.</i>	
Summary of Issue: <div style="border: 1px solid black; height: 80px; margin-top: 5px;"></div>	
Completed By: <input style="width: 150px;" type="text"/>	Job Title: <input style="width: 150px;" type="text"/>
Date: <input style="width: 100px;" type="text"/>	
<b>SECTION 2 - DIMP STEERING TEAM REVIEW</b>	
<i>Instructions: This section is to be completed by a member of the DIMP Steering Team and shall reflect the consensus of the team. Describe the team's comments and list any further actions to be taken.</i>	
Comments: <div style="border: 1px solid black; height: 100px; margin-top: 5px;"></div>	
Completed By: <input style="width: 150px;" type="text"/>	Job Title: <input style="width: 150px;" type="text"/>
Date: <input style="width: 100px;" type="text"/>	
<b>SECTION 3 – ISSUE RESOLUTION</b>	
<i>Instructions: This section is to be completed by the Integrity Management Engineer. List any action items from Section 2 and enter completion dates when items resolved.</i>	
Actions Taken:	Date Resolved:

## 6.0 THREAT IDENTIFICATION

The purpose of this section is to describe the process used to identify threats, including the threat categories considered, the segmentation of the system to which the threats will be categorized, and the process by which subject matter experts determine if a threat exists.

### 6.1 THREAT CATEGORIES

An overview and discussion of each threat and sub-threat category is provided below in Sections 6.1.1 through 6.1.8.

In addition to the Company's own experiences and information, categories considered are based on the following:

- (a) Membership or participation in local, regional, or national trade associations; including workshops, meetings, and other forums where knowledge is shared,
- (b) Networking with peer companies,
- (c) Information received from manufacturers of pipeline materials,
- (d) Information received from relevant government agencies,
- (e) Review of trade journals and magazines that publish material regarding gas distribution,
- (f) Department of Transportation Pipeline and Hazardous Materials Safety Administration (PHMSA) Advisory Bulletins, and
- (g) National Transportation Safety Board (NTSB) Reports and Recommendations applicable to natural gas pipeline accidents.

Through the periodic evaluation provisions contained within Section 10, the Company will periodically review data from internal and external sources, such as those listed above, to determine if other potential threats ought to be considered. Potential threats may include those which are not currently evident based on reasonably available data. Consideration of other potential threats could entail the collection of additional data such that the existence of such threats can be determined.

### 6.1.1 Corrosion

- (a) External Corrosion – Corrosion is a process in which metal decomposes, as in the oxidation of iron in the presence of water by an electrolytic process. Metallic pipe (e.g., cast iron, steel, wrought iron, copper) depending upon age, soil conditions and other factors may be susceptible to corrosion. External corrosion begins on the exterior surface of certain metallic gas facilities. Significant corrosion may result in the release of gas from gas pipeline facilities.
- (b) Internal Corrosion – Corrosion is a process in which metal decomposes, as in the oxidation of iron in the presence of water by an electrolytic process. Metallic pipe (e.g., cast iron, steel, wrought iron, copper) depending upon age, soil conditions and other factors may be susceptible to corrosion. Internal corrosion begins on the interior surface of certain metallic gas facilities. Significant corrosion may result in the release of gas from gas pipeline facilities.

### 6.1.2 Natural Forces

- (a) Earth Movement – This threat is a result of a naturally occurring event (e.g., earthquakes, landslides or subsidence) which may cause land shifts which can undermine the construction integrity of pipelines.
- (b) Lightning – This threat is a naturally occurring phenomenon. Gas facilities may be damaged and/or catch on fire due to a direct lightning strike. Gas facilities may also be compromised as a secondary effect from a lightning strike in the area. An example of such a secondary effect would be a fire started by lightning in an area in which gas facilities are present that results in damage to a pipeline system asset.
- (c) Other Storm Damage – This threat category includes heavy rains, floods and mudslides which may undermine the environment supporting the gas facilities and thereby compromise the construction integrity of such gas facilities. It also includes high wind events such as hurricanes and tornadoes.

- (d) Frost – This broad threat category includes mechanical stress induced in a pipe or component when some or all of its parts are not free to expand or contract in response to changes in temperature or where components become inoperable because of freezing.

### **6.1.3 Excavation Damage**

- (a) Excavator Error – This threat may occur whenever the Company, its contractors, or entities unrelated to the Company fail to employ safe, prudent excavation techniques. This threat also includes excavation error when performing dredging of waterways or bodies of water.
- (b) Locator Error – This threat may occur when a person charged with locating gas facilities incorrectly marks or fails to mark an underground gas facility.
- (c) Poor Records – This threat may occur when an incomplete or inaccurate locate results from incomplete or inaccurate facility records.
- (d) Failure to Notify One Call Center – This threat may occur when the Company, its contractors, or entities unrelated to the Company do not notify the One Call System to give notice of intent to excavate.

### **6.1.4 Other Outside Force**

- (a) Fire/Explosion Not Caused by Gas – This threat may occur when a fire and/or explosion occur and subsequently result in damage to gas facilities.
- (b) Vehicular Damage – This threat may occur when the Company's gas facilities are damaged by motorized vehicles or equipment not engaged in excavation. An example would be damage to a meter set caused by vehicle impact.
- (c) Damage Caused by Maritime Vessels – This threat may exist for damage to gas facilities by boats, barges, drilling rigs, or other maritime equipment or vessels set adrift (e.g., as a result of severe weather events and carried into the pipeline by current or



high winds) or which have otherwise lost their mooring. The threat also may exist for damage to gas facilities caused by impact of maritime equipment or vessels while they are engaged in their normal or routine activities not including excavation activities.

- (d) Electrical Arcing from Other Equipment or Facility – This threat may exist whenever electric facilities are in close proximity to the Company's gas facilities. Damage to pipe or coating is possible in certain situations and conditions.
- (e) Previous Mechanical Damage – This threat may exist where damage occurred to gas facilities at some time prior to the date it is discovered. It includes prior outside force damage of an unknown nature, prior natural force damage, and prior damage from other outside forces.
- (f) Intentional Damage – This threat category consists of vandalism, terrorism, or theft.

#### **6.1.5 Material or Welds**

Components in the distribution system may be susceptible to leaks, ruptures or other failures from defects within the material of the pipe, components or joints due to faulty manufacturing procedures. Additionally, such defects may result from poor construction/installation practices, and in-service stresses such as vibration, fatigue and environmental cracking

- (a) Body of Pipe – This threat may exist for certain plastic pipe installed that may leak depending upon pipe resin, manufacturing and service conditions.
- (b) Pipe Seam – This threat may exist due to poor weldment of steel pipe during the manufacturing process.
- (c) Threaded Joint – This threat may occur due to insufficient thread sealant applied or substandard thread tolerances created during manufacture or fabrication.
- (d) Weld – This threat may exist on poorly-joined weld connections made during construction, installation or fabrication.

- (e) Fusion Joint – This threat may exist when joining plastic pipe to plastic pipe or fittings during construction, installation or fabrication.
- (f) Cast Iron Bell Joint – This threat may exist due to quality of the bell and spigot joints, the depth of frost in the ground and the freeze and thaw cycles of the earth surrounding the joints.
- (g) Mechanical Fitting – A threat may exist for pipe to pull out from mechanical fittings due to pullout forces that could include cyclic fatigue from seasonal temperature changes (e.g. frost heave), ground movement, improper installation, and deterioration of the fitting. Mechanical fittings may leak through the seal between the fitting and the pipe. Contributing factors may include a degradation of the seal over time or a change in the gas quality in the distribution system.
- (h) Repair Device Failure – This threat may exist after the application of a repair device (e.g., a repair clamp, repair sleeve, repair saddle) based on deterioration or improper installation of the device.
- (i) Other Material Failure – This threat category exists for all other material failures not described specifically above.

#### **6.1.6 Equipment Failure**

- (a) Malfunction of Pressure Regulating Equipment – This threat may exist due to malfunctions of control and relief equipment (typically the result of failed regulator components, alarm devices or relief valves).
- (b) Valve Failure/Leakage – This threat may exist when valves fail to open or close on command or when component failure allows a bleed-through condition.
- (c) Other Equipment Failure – This threat may exist due to failures on compressors, meters, or regulator stations where the failure resulted from a faulty component not listed above (such as nipples, flanges, valve connections, line pipe collars, etc).

### 6.1.7 Incorrect Operations

- (a) Incorrect Construction/Operation – This threat may occur during installation, operating, maintenance or repair activities. Threats in this category include improper equipment selection or installation, poorly written procedures, not following written procedures, an unintentional ignition of the transported gas during a welding or maintenance activity, and training or judgment errors.

### 6.1.8 Other

- (a) Miscellaneous – This threat category is reserved for threats that are known but cannot be attributed to threats that have been previously described in this section. If used, the corresponding cell on Table B-1 must be labeled with a “D”, indicating a localized threat and the specific condition must be detailed on Table B-2.

## 6.2 SYSTEM SEGMENTATION

The Company has subdivided the distribution system into regions (asset groups) with similar characteristics and for which similar actions likely would be effective in reducing risk. The system segmentation is shown and numbered below.

- (a) Steel Mains
  - (1) Bare Protected
  - (2) Bare Unprotected
  - (3) Coated Protected
  - (4) Coated Unprotected
- (b) Steel Services
  - (1) Bare Protected
  - (2) Bare Unprotected
  - (3) Coated Protected
  - (4) Coated Unprotected
- (c) Plastic Mains<sup>11</sup>
  - (1) Polyethylene – Manufactured Before 1982
  - (2) Polyethylene – Manufactured During or After 1982

<sup>1</sup> The year 1982 was chosen to reflect vintage pipe having increased vulnerability to brittle-like cracking, as described in PHMSA Advisory Bulletin ADB-99-02, issued October 1, 1999.

- (d) Plastic Services
  - (1) Polyethylene – Manufactured Before 1982
  - (2) Polyethylene – Manufactured During or After 1982
- (e) Other Pipe
  - (1) Cast Iron
  - (2) Wrought Iron
  - (3) Copper
- (f) Aboveground Mains
  - (1) Aboveground Mains
- (g) Settings
  - (1) Customer Meter Sets
  - (2) Measurement and Regulating Stations
- (h) Steel Fittings
  - (1) Mechanical Couplings
  - (2) Service Tees
  - (3) Service Risers
  - (4) Valves
  - (5) Other
- (i) Plastic Fittings
  - (1) Mechanical Couplings
  - (2) Service Tees
  - (3) Service Risers
  - (4) Valves
  - (5) Other

In addition to grouping distribution facilities into the above asset groups or regions, consideration is given to applying a “localized” component to the threat identification. Some threats may be localized to certain geographic areas or to certain materials within the asset group. Section 7.1.3 provides a more in-depth discussion of this process.

### **6.3 DIMP STEERING TEAM ANALYSIS**

To leverage the knowledge and experience of Operations personnel, the Company has established an SME-based approach to identify threats to the distribution system. The process described within this section applies to the initial threat identification and is to be repeated on a periodic basis, not to exceed

five years in accordance with the requirements within Section 10 concerning the complete program re-evaluation.

The DIMP Coordinator will arrange a DIMP Steering Team meeting to classify the nature of threats for each threat category and within each asset group as listed in Sections 6.1 and 6.2, respectively. The DIMP Coordinator could supplement the meeting participation with additional personnel to ensure there is sufficient knowledge of all territories within the Company. Additional personnel could include those with experience within Field Operations, Damage Prevention, Leakage, Regulation, Corrosion, Construction, and Engineering.

To classify threats, the team will consider reasonably available information relating to the system's design, operation, maintenance, and environmental factors. Sources of data may include, but are not limited to, incident and leak history, corrosion control records, continuing surveillance records, patrolling records, maintenance history, and excavation damage experience. References to these records can be found within Table A-1 "*IM Program Records Summary*" located in Appendix A.

The DIMP Coordinator ensures the following information is addressed during the meeting:

- (a) Available data used to support the identification of threats,
- (b) The existence of known leak histories resulting from each threat category and within each asset group, and
- (c) Which threats are not considered "general" in nature, such that there is a **significant difference** in risk associated with the threat:
  - (1) For certain geographic areas,
  - (2) For certain root causes within each threat category, or
  - (3) For certain types of attributes within each asset group, such as size, pressure, manufacturer/model, etc.

Threat identification information will be consolidated and represented within Table B-1 "Threat Identification" and located in Appendix B. The information within this table will be at the Company level, such that the threat classification applies to all Operating Centers within the state.

If it is apparent there are truly significant differences in threats among Operating Centers (e.g., one location may not have cast iron pipe), the difference may be

addressed using the appropriate code on Table B-1 indicating a localized condition exists.

Where Table B-1 reflects a localized condition (Code D), the details of the issue shall be documented sufficiently in the event further action is warranted in accordance with Section 7.1.3.

## **7.0 RISK EVALUATION AND RANKING**

Risk analysis is an ongoing process of understanding what factors affect the risk posed by threats to the gas distribution system and where they are relatively more important than others. The primary objectives of the evaluation and ranking of gas distribution system risk include the following:

- (a) Consider existing and potential threats,
- (b) Consider the likelihood of failure associated with each known threat,
- (c) Consider the potential consequences of such a failure,
- (d) Estimate and rank the risks (i.e., determine the relative importance) posed to the pipeline, and
- (e) Consider the relevance of threats in one location to other areas.

The Company uses two risk evaluation processes. The process described within Section 7.1 was established to provide a high level assessment of the risk profile associated with each threat category and asset group. This evaluation can gauge the effectiveness and the need for various Company programs to ensure appropriate allocation of resources. While this evaluation considers all threat categories and all distribution facilities, the results of the evaluation will enable the Company to focus efforts on those asset groups and threats posing the greatest risk.

A limitation of this approach is the lack of the ability to identify specific pipeline segments with relatively high risk profiles. To compensate for this, the second risk evaluation process is used, and is described within Section 7.2. By identifying facilities in limited geographic areas with elevated risk, the Company can perform an analysis of appropriate risk management activities for these targeted pipeline segments.

### **7.1 SYSTEM LEVEL RISK EVALUATION**

Sections 7.1.1 thru 7.1.5 below describe the System Level Risk Evaluation process.

#### **7.1.1 Risk Score Categories**

This risk evaluation uses the same threat categories as listed within Section 6.1 and the same asset groups as listed within Section 6.2.

Refer to Section 7.1.3 describing a process for identifying additional categories for which risk scores may be determined.

### 7.1.2 DIMP Steering Team Analysis

The process described within this section applies to the initial risk evaluation and is to be repeated on a periodic basis, not to exceed five years in accordance with the requirements within Section 10 concerning the complete program re-evaluation.

After identifying threats as described in Section 6.3, the DIMP Steering Team will assign risk factors to each of the threat / asset group combinations that were considered during the identification of threats. However, if a threat was determined not to apply to a certain asset group, no risk factors will be determined for that threat / asset group combination.

For this risk evaluation, the Company calculates risk as follows:

$$\text{Risk} = \text{POF} \times \text{COF}$$

Where: *POF = Probability of Failure*

*COF = Consequence of Failure*

The DIMP Steering Team will determine each of the two factors. The scale used is at the discretion of the team; however, care must be taken such that the weightings are appropriately balanced for the POF and COF factors, such that one is not overly emphasized during the calculation of risk.

The team will consider reasonably available information relating to the system's design, operation, maintenance, and environmental factors. Sources of data may include, but are not limited to, incident and leak history, corrosion control records, continuing surveillance records, patrolling records, maintenance history, and excavation damage experience. References to these records can be found within Table A-1: *IM Program Records Summary* located in Appendix A.

As in the threat identification process, the information will be consolidated and represented within Tables C-1: *Risk Evaluation – Probability of Failure Factors*, C-2: *Risk Evaluation – Consequence of Failure Factors*,



and C-3: *Risk Evaluation – Total Risk Scores* and placed in Appendix C. The information within this table will be at the Company level, such that the risk factors and scores apply to all Operating Centers within the state.

If it is apparent there are truly significant differences among Operating Centers (e.g. one location may not have cast iron pipe), the difference may be addressed using the process described in Section 7.1.3.

### 7.1.3 Treatment of Unique Threats

Threats may be considered “general” or “local” in nature. A threat is considered to be localized if its applicability is specific to (1) certain geographic areas; (2) certain root causes within the threat category; or (3) certain types of attributes within the asset group, such as size, pressure, or manufacturer/model.

If it is apparent that there is a **significant difference** in the risk associated with a localized condition or there is a desire to specifically include such conditions in this System Level Risk Evaluation, the threat shall be identified by code “D” on Table B-1. For each localized condition identified on this table, the risk factors (probability of failure, consequence of failure) shall be estimated and documented on Table B-2: *Localized Threat Conditions*.

### 7.1.4 Risk Validation

After the asset groups and threats are ranked according to the relative risk determination, the DIMP Steering Team will review the results to determine if the results accurately reflect in general what is known about the system and the problems being experienced. When inconsistencies are discovered, further review of the information and assigned factors is undertaken. Where appropriate, probability and/or consequence factors are adjusted. Adjustment of the factors is allowable, appropriate, and expected.

### 7.1.5 Analysis of Results

The DIMP Steering Team will rank the highest risks based on the total risk scores assigned on Table C-3. The highest risks will be listed on Table C-4: *Evaluation of Highest Risks*. At a minimum, the top ten risks are to be listed, based on their risk scores. The DIMP Steering Team may add additional, lower scored threats to this list if they feel the scoring

system did not properly elevate a certain threat. Inclusion on Table C-4 is the Company's criteria for identifying which threats have met the risk threshold for which additional measures to manage risk must be evaluated.

The adequacy of current risk reduction activities will be determined as part of the Section 8 reviews. If the current activities are insufficient, additional activities will be implemented.

## 7.2 SEGMENT LEVEL RISK EVALUATION

This evaluation process uses a comprehensive decision support software tool, Optimain DS®, to help Field Engineering assess and prioritize the risk associated with gas mains and help allocate capital for replacement or drive recommendations for consideration of other risk mitigation activities.

This application was implemented in the Columbia Companies during 2008 and 2009. During implementation, all proposed data sources were reviewed and validated with subject matter experts. Initial testing was performed to ensure data was loading properly and comparisons were made between the Optimain DS® project listings and previously identified project listings. SMEs reviewed other top priority projects from Optimain DS® in order to validate the tool was identifying valid projects for replacement consideration.

Main and service leak data is uploaded every three (3) months and service line data is refreshed annually. After each data upload, projects are either created or recalculated using this latest information. The top projects across the Company are reviewed for changes and further actions are considered such as reprioritizing its current replacement schedule, increasing leak survey intervals or replacing a short segment.

Optimain DS® calculates risk as follows:

$$\text{Risk} = \text{Probability of Failure} \times \text{Consequence of Failure}$$

Probability of failure is calculated with base failure curves statistically developed by mechanism and class of pipe and is then influenced by other pipe failure factors. Pipe failure factors are captured with each leak report and include the following.

- (a) Pipe material,
- (b) Pipe diameter,

- (c) Pipe pressure,
- (d) Leak history,
- (e) Pipe condition,
- (f) Leak cause,
- (g) Coating condition,
- (h) Coating type,
- (i) Pipe depth, and
- (j) Soil type (*must be entered manually*).

Consequence of failure is calculated using risk profile factors which evaluate how serious the consequences could be when a pipe fails. Risk profile factors are captured with leak reports, customer information and some external data sources. These include the following:

- (a) Pipe diameter,
- (b) Pipe pressure,
- (c) Failure type,
- (d) Type of ground cover,
- (e) Service line length (an estimate of proximity of buildings),
- (f) Building use (e.g., hospitals),
- (g) Population density,
- (h) Pipe depth,
- (i) Leak grade,
- (j) Leak survey interval,
- (k) Leak reported by (company representatives vs. public),
- (l) Meter location, and
- (m) Service class.

These factors are weighted and used to calculate a relative risk score. More details can be found in the Optimain NiSource Configuration Manual.

Optimain DS® is, therefore, a tool which measures the relative risk of our pipe network, and directs the attention of engineers and operators to pipe segments that offer significant risk reduction opportunities. Once Field Engineers review those segments or projects, they take ownership of corresponding projects in Optimain and determine any further actions required for that segment. Any future leakage activity on that project will be reflected in Optimain after every data refresh cycle and will continue to be monitored for risk mitigation by the Field Engineer through Optimain DS®.

## 8.0 IMPLEMENTATION OF MEASURES TO ADDRESS RISK

The purpose of this section is to describe how the Company implements measures aimed at achieving risk management. Risk management is accomplished by acting to reduce the likelihood of an occurrence, by alleviating the consequences of an occurrence, or both. Appropriate actions are dependent upon the type of threat, magnitude of risk, and the viability of the actions in effectively allocating resources to manage the relevant risk factors. Risk reduction activities can be in the form of high-level programs applied uniformly to a wide group of facilities or a single, specific activity aimed at a targeted facility.

The sections below describe various measures the Company has selected for the purpose of managing pipeline safety risks associated with the distribution system.

Table D-1: *Programs Implemented to Address Risk* within Appendix D provides a more detailed listing of the elements of these programs, summarizes the impacts on risk factors, and references applicable gas standards which explain how the activities are performed.

### 8.1 LEAK MANAGEMENT PROGRAM

#### 8.1.1 Locate the Leaks

An effective leak management program includes locating leaks by visual inspection and leak survey equipment, timely response to customer notification of a gas odor, and a variety of other means. It involves the use of qualified personnel to perform leak detection activities and the selection of appropriate leak detection equipment. The Company has the following internal procedures (Gas Standards 1708 series) that specify the frequency and type of leak surveys to be conducted based upon environmental conditions, the operator's knowledge of the distribution system, and regulatory requirements:

- (a) GS 1708.010 "General Policy for Gas Leakage Inspection and Control",
- (b) GS 1708.020 "Leakage Surveys",
- (c) GS 1708.030 "Leakage Survey and Test Methods",
- (d) GS 1708.040 "Gas Detection Equipment Calibration and Operational Checks",

- (e) GS 1708.050 "Propane Systems Leakage Survey and Test Methods",
- (f) GS 1708.060 "Inside Leak Investigation",
- (g) GS 1708.070 "Outside Leak Investigation", and
- (h) GS 1708.080 "Investigation of Gas Indication from an Unknown Source".

### **8.1.2 Evaluate the Potential Hazards**

An effective leak management program includes evaluating the severity of leaks according to established classification criteria. These classification criteria take into consideration the safety risk posed by the leak. The determination of leak migration is part of the process.

Leaks are classified using the following criteria:

- (a) *Leaks that require immediate action (Grade 1 Leaks)*: A leak that represents an existing or probable hazard to persons or property, and requires immediate repair or continuous action until the conditions are no longer hazardous.
- (b) *Leaks scheduled for repair (Grade 2 Leaks)*: A leak that is recognized as being non-hazardous at the time of detection, but justifies scheduled repair based on probable future hazard. Some Grade 2 leaks require an accelerated repair schedule.
- (c) *Monitored leaks (Grade 3 Leaks)*: A leak that is non-hazardous at the time of detection and can be reasonably expected to remain non-hazardous.

Gas Standard 1714.010 "Leakage Classification and Repair" provides examples of criteria for each leak grade.

### **8.1.3 Act Appropriately**

Once a leak has been located and evaluated, the Company takes actions that are consistent with the severity of the leak. This may include temporary or permanent repair, replacement, or other steps that reduce any immediate hazard posed by the leak. This may also include scheduling the line for repair or periodic monitoring in the case of non-hazardous leaks. The Company has the following internal procedures

(Gas Standards 1714 Series) that provide guidance on appropriate actions under varying circumstances:

- (a) GS 1714.010 "Leakage Classification and Response",
- (b) GS 1714.020 "Leakage: Distribution Pipe Repair",
- (c) GS 1714.030 "Leakage Pinpointing", and
- (d) GS 1714.040 "Leakage – Sampling of Unknown/Stray Gas".

#### **8.1.4 Keep Records**

An effective leak management program includes the collection and recording of data pertinent to a leak to increase the Company's knowledge of the system, measure its performance and comply with regulatory reporting requirements.

Leakage information is to be documented on the applicable Company forms or in the work management system.

#### **8.1.5 Self-Assess**

The Company's leak management program includes a self-assessment of the distribution system by compiling associated performance metrics and by analyzing pertinent information to determine if further risk control practices are needed to enhance the safety of the system. Additional risk control practices may include modifying the cathodic protection system, patrols, procedure reviews, personnel qualifications, pipe and component replacement and public education.

Gas standard 1714.060 "Leakage Repair Follow-Up Inspections" is an example of assessing leak repairs.

### **8.2 OTHER PROGRAMS TO ADDRESS RISK**

In addition to the leak management program, the Company has in place numerous programs and activities aimed at reducing the probability of pipeline failures and mitigating the consequences should a failure occur. The following sections describe some of the programs and the threats which are addressed.

Table D-1: *Programs Implemented to Address Risk* within Appendix D provides a more detailed listing of the elements of these programs, summarizes the impacts

on risk factors, and references applicable gas standards which explain how the activities are performed.

### 8.2.1 Replacement Programs

The Company has an active main replacement program where leakage and other infrastructure information are evaluated to identify replacement candidates. This evaluation and identification is performed on an annual basis by the Engineering Department as new system information is presented. The identification and evaluation is supported by Field Operations personnel and associated field information along with a software application Optimain DS®.

Once candidates are identified, Optimain DS® supports the prioritization of these candidates. Optimain DS® is a gas main predictive failure software application that utilizes leakage and customer information and provides a risk evaluation for each candidate pipe main segment within the gas distribution system. This application identifies and ranks projects based on likelihood of failure, consequence, and economics to support optimal resource allocation in risk reduction by recommending main replacement decisions.

Optimain DS® is updated every three months and reviewed by Engineering for accuracy and potential reprioritizing of existing projects. A more thorough review and project identification is performed annually in conjunction with the capital allocation schedule.

Some of the objectives of this program include the following.

- (a) Enhance public safety by replacing mains subject to leakage,
- (b) Improve system reliability,
- (c) Minimize emergency response needs by reducing leakage, and
- (d) Optimize resources to reduce the maximum amount of risk.

This program is also supported by the Company's Capital Authorization and Allocation Policy to ensure controls are in place to execute the identified replacements in a planned and efficient manner.



### 8.2.2 Damage Prevention Program

The Company has in place a program to protect the Company's natural gas distribution infrastructure from external damage; to prevent injury to the public, excavators, and employees; to safeguard property; and to streamline communication related to proposed excavations or demolition work near Company facilities.

The details of the program are described in a written plan, titled *Damage Prevention Plan*. The administration and implementation of the program is the joint responsibility of the designated Plan Administrator and the Damage Prevention Steering Team.

In accordance with this plan, the Company implements the following measures aimed at achieving risk management:

- (a) The Company utilizes lists maintained by the one-call center of all entities who normally engage in excavation activities within the state,
- (b) The Company periodically notifies external parties of program elements and how to learn the location of underground pipelines before excavation activities are begun,
- (c) The Company processes information received from the state's one-call center regarding notification of planned excavation activities,
- (d) The Company notifies excavators of its underground facilities by marking locations in accordance with the state's one-call regulations,
- (e) The Company monitors certain excavation activities that may result in a high likelihood of damage consequences, due to historic excavator performance, critical nature of facilities, or type of excavation being performed,
- (f) If the Company has knowledge that blasting will be part of an excavation, the Company verifies the integrity of its facilities,
- (g) Company representatives notify the state one-call center of excavation activities the Company plans to conduct, and
- (h) The Company uses a quality assurance process to validate the quality of certain locates and markings.

### 8.2.3 Public Awareness Program

The Company has in place a program to educate the general public, public officials, emergency responders, and excavators on: (1) the presence and purpose of our facilities, (2) the importance of damage prevention, and (3) the steps to take in the event of a natural gas emergency.

Providing third parties with knowledge that pipelines may exist in close proximity to excavation activities, and of the hazards that may result, reduces the probability (likelihood) factor associated with the risk of excavation damage. The familiarity with being able to recognize a leak and knowing how to report such an event lessens the consequences of a potential emergency condition. As such, the consequence factor associated with the risk of all threats is reduced.

Some of the objectives of this program include the following:

- (a) Enhance public safety by educating residents on the hazards of natural gas, and how to recognize and react to possible leaks,
- (b) Raise public awareness of the necessity to call the One Call Center before digging when doing any kind of excavation work,
- (c) Raise the awareness of the affected public and stakeholder audiences of the presence of buried natural gas facilities in the communities served,
- (d) Help excavators understand the steps that they should take to prevent damage to the pipeline and to respond properly if the pipeline is damaged,
- (e) Enhance emergency response coordination by helping emergency response agencies and first responders understand the proper actions to take in response to a pipeline emergency, and
- (f) Build trust and better relationships with the public along the pipeline route.

The details of the program are described in a written plan, titled *Public Awareness Plan*. The administration of the program, monitoring of the program effectiveness and continuous program improvement is the joint

responsibility of the designated Program Administrator and Public Awareness Steering Team members, as outlined in the Company's *Public Awareness Plan*.

The following attributes describing the program are documented within the plan:

- (a) Identification of affected third parties that will be targeted for communications,
- (b) Selection of media and communication options for each target audience,
- (c) Description of the content included in the communications,
- (d) Determination of the frequency of each type of communications,
- (e) Description of a process by which the program is periodically evaluated and improvements are made based on the results of the assessments, and
- (f) Establishment of a process by which significant plan changes are recognized, reviewed, approved, communicated, and documented.

## **8.2.4 Programs to Address Human Factors**

### **8.2.4.1 Operator Qualification Program**

The Company has developed and implemented an Operator Qualification (OQ) Program. The program was developed in response to the operator qualification rule, the purpose of which is to minimize human error by establishing a verifiable, qualified workforce. In so doing, the Company reduces the consequences from human error and promotes personnel and public safety. Furthermore, operating and maintenance personnel are qualified to recognize and react to abnormal operating conditions.

The elements of the program are specified in the Company's Operator Qualification Plan. The purpose of the written plan is to develop a unified standard for qualification of pipeline operator and contractor/ subcontractor personnel.

The OQ plan includes the following provisions:

- (a) Identify covered tasks,

- (b) Ensure through evaluation that individuals performing covered tasks are qualified,
- (c) Allow individuals who are not qualified pursuant to Subpart N to perform a covered task if directed and observed by an individual that is qualified,
- (d) Evaluate an individual if the operator has reason to believe that the individual's performance of a covered task contributed to an incident as defined in Title 49 CFR § 191,
- (e) Evaluate an individual if the operator has reason to believe that the individual is no longer qualified to perform a covered task,
- (f) Communicate changes that affect covered tasks to individuals performing those covered tasks, and
- (g) Identify those covered tasks and the intervals at which evaluation of the individual's qualifications is needed.

#### **8.2.4.2 Control Room Management**

The Company has reviewed its operations concerning human factors and other aspects of control room management for pipelines where the Company's controllers use supervisory control and data acquisition (SCADA) systems. The company has formally defined the roles and responsibilities of controllers and verified that controllers have the necessary information, training, and processes to fulfill these responsibilities. Under this program, the Company implements methods to prevent controller fatigue, manages SCADA alarms, assures control room considerations are taken into account when changing pipeline equipment or configurations, and reviews reportable incidents or accidents to determine whether control room actions contributed to the event. The program is described within the *Gas Control Room Management Plan*.

#### **8.2.4.3 Drug and Alcohol Plan**

The Company has prepared and implemented a Drug and Alcohol Plan in response to the Department of Transportation (DOT) regulations establishing an Anti-Drug Plan and an Alcohol Misuse Prevention Program. Although compliance with these regulations is mandatory, the Company fully supports the efforts of the DOT to make the workplace drug and alcohol free and exhibits further support of this position through its Company Policy, which

provides compliance with the Drug Free Workplace Act of 1988. The program ensures public safety and helps prevent accidents by prohibiting certain alcohol-related conduct and requiring drug and alcohol testing, training and education.

#### **8.2.4.4 Construction Inspection**

The Company periodically reviews work done by Company or Contract personnel to ensure the work is correctly performed in accordance with appropriate gas standards.

#### **8.2.4.5 O&M Manual / Gas Standards**

The Company has developed and implemented Operating and Maintenance Procedures (OMP) and gas standards. The OMP sets forth Management's expectations of leadership to ensure compliance with 49 CFR § 191, § 192 and applicable state regulations pertaining to the distribution of gas. The gas standards set forth leadership's expectations of Company employees and contractors as to how certain activities must be performed. The OMP and gas standards or portions thereof are available to all employees in the Company and are made available to contractors performing such activities on behalf of the Company. The OMP and gas standards are also maintained electronically on the Company's intranet website.

### **8.2.5 Internal Auditing**

The Company provides training to field personnel designed to educate and train the employee on proper procedures associated with activities which they are expected to perform. In addition to this training, the Company uses internal auditing processes to measure compliance with internal standards and procedures as well as applicable federal and state regulations. A primary goal of the auditing programs is to minimize the threat of incorrect operations.

#### **8.2.5.1 Internal Operations Audit**

The Internal Operations Audit Program is a systematic, documented, periodic, objective assessment of gas operations to measure compliance with pipeline safety regulations and Company procedures. The audit process includes an on-site review of applicable operations records, field observations of selected pipeline facilities and pipeline facility installation and

maintenance construction job sites. Comprehensive internal audit protocols are used during the audit process to measure compliance levels within each subject area included in the audit scope.

The purpose of performing internal auditing of Operations includes the following:

- (a) Minimize future risks to pipeline safety as a result of incorrect operations,
- (b) Evaluate the effectiveness of policies, management systems, and best practices communications,
- (c) Verify the Company's compliance with federal requirements and state commission expectations,
- (d) Identification and documentation of specific occurrences where operations activities can be improved,
- (e) Timely implementation of corrective actions in addressing compliance concerns, and
- (f) Identification of trends which may indicate opportunities for enhanced communications, training, procedures, or process controls.

Pipeline safety operations audits are performed at Operating Center locations on average every two to four years depending on the characteristics of the Operating Center (i.e., size of operation, extent of facilities, amount of work activity, etc.).

Findings generated from the audit process are assigned priorities based on the severity of the finding and corrective action recommendations are assigned to each finding to rectify the finding. Corrective action recommendations are tracked to ensure findings are closed in accordance with the corrective action recommendation and to determine that findings are rectified within the time frame dictated by the priority assigned to the finding. Corrective action periods for findings range from 30 days to 90 days from the date of the audit report depending on the priority assigned to the finding. All findings are summarized in an audit report and communicated to appropriate management upon completion of the audit. Status reports of "open" audit findings are sent to appropriate management on a monthly basis to monitor the closure progress of "open" findings.

Periodically, the findings discovered through this audit program are reviewed to identify recurring issues suggesting potential flaws in management systems. Another objective of the periodic review is to assess the effectiveness and adequacy of the internal audit protocols. If additions or modifications to the protocol list are warranted, changes are made within the audit program.

#### **8.2.5.2 Service Operations Quality Assurance (QA) Program**

The Service QA program is specifically focused on work performed by service personnel.

The objectives of the program of Operations include the following:

- (a) Provide consistent observation and evaluation of service operations activities,
- (b) Provide coaching to service personnel to clarify codes, review Company standards, and raise awareness of potential hazards,
- (c) Ensure proper maintenance of equipment and tools (e.g., proper calibration, correct application, and good condition),
- (d) Validate quality of training and Operator Qualification materials,
- (e) Enhance public safety by minimizing the threat of incorrect operations, and
- (f) Provide trending of most common findings to target for communication or training emphasis.

Field evaluations are conducted on site with service personnel responding to actual work orders dispatched from the Integrations/Logistics Center. Work may include responses to: inside odor, carbon monoxide, outside odor, service connect, new set, disconnect, and reestablishing service. Evaluators are equipped with Mobile Data Terminal (MDT) supervisory access and are able to monitor pending work and locations in order to observe specific work types or personnel. The designated evaluator will typically meet a Service Technician at the local operating office or at the location of a work assignment. The evaluator will monitor actions and decisions of the employee. Any imminent safety concerns will be addressed and corrected at the time of occurrence. The evaluator will proceed to additional work

assignments with the employee in order to monitor various job types throughout the work day.

Observations are documented on detailed working papers (check sheets) based on the type of work completed. The evaluator will communicate observation details to appropriate leadership upon completion of the evaluation process for each employee observed. These consultations will provide local leadership information that will assist them when conducting local coaching and training sessions.

Trending data is periodically analyzed to identify any common issues or concerns, packaged into informational messages and reminders, and distributed to service personnel throughout the service territory to minimize future procedural oversights. These informational messages may be distributed through the MDT system or by informational memos to be presented at tailgate sessions and employee meetings.

#### **8.2.5.3 Leakage Survey Quality Assurance Program**

A quality leak management program is necessary for the management of risk within the distribution system, as a means of minimizing the consequences of pipeline failure caused by any threat. The Company has created a process by which the quality of the leakage program can be tested, verified and documented.

A portion of recently completed surveys are "re-worked" by qualified, unbiased personnel to determine if the results meet Company expectations. Survey work is a mixture of mainline surveys, service line surveys, re-inspections, follow-ups, and patrols.

Results are analyzed and documented for review with the inspector, his/her supervisor (company or contractor), and appropriate Company management.

A component of this program is "Ride & Looks", in which a Technical Support Specialist or other qualified person spends a day in the field with the inspector evaluating skill levels, adherence to Company policies, use of accepted best practices, and work place safety.

A goal of the program is to include all Leak Inspectors a minimum of one time each year. Selection of personnel to evaluate can be



random or for cause. An inspector selected randomly and evaluated once is not excluded from being randomly selected again in the same calendar year. Reasons for selecting an inspector for cause could include abnormal leak frequency, productivity issues, data from the work management system, individual work habits, or for other reasons at the discretion of the Operations leadership.

For follow up surveys, the area inspected is typically confined to work completed not more than 30 days prior. Follow up inspections typically include Grade 1, Grade 2+ and Grade 2 leaks and should be selected from corrosion leaks where additional leakage could be expected. Where possible, main and service line surveys are selected from areas where active leakage would be expected. Re-inspections include both grade 2 and grade 3 leaks when available.

Leakage Survey Quality Assurance findings are reported to the appropriate supervision. Possible further action could include: (1) commendation for good work, (2) on-the-job refresher training, (3) Gas Standards review, (4) expanded quality assurance, (5) revocation of Operator Qualification certifications, or (6) disciplinary action.

## **8.2.6 Facility Inspections and Monitoring**

### **8.2.6.1 Cathodic Protection (CP) System Inspections**

Inspection and monitoring of cathodically protected pipe are conducted in accordance with gas standard GS 1430.020 "External Corrosion Control Monitoring". Cathodic protection systems used by the Company are galvanic (sacrificial) anodes and impressed current (rectifier) systems.

Prompt action is taken to correct deficiencies found during the inspection. Inspections are documented on the applicable Company forms or in the work management system.

### **8.2.6.2 Atmospheric Corrosion Monitoring**

Inspections of above ground piping and related facilities exposed to the atmosphere are conducted in accordance with gas standard GS 1450.010 "Atmospheric Corrosion".

### 8.2.6.3 Active Corrosion Monitoring

Unprotected pipelines are evaluated for areas of active corrosion in accordance with gas standard GS 1430.030 "Active Corrosion".

### 8.2.6.4 Patrolling

The Company has in place a program to patrol distribution systems, where deemed necessary, to observe factors affecting the safe operation of the system and to enable the correction of potentially hazardous conditions, as described within gas standard GS 1702.010 "Patrolling Distribution Systems". Conditions which are potentially hazardous may include the following:

- (a) Visual evidence of leakage,
- (b) Physical deterioration of exposed piping,
- (c) Pipeline spans and structural pipeline supports such as bridges, piling, headwalls, casings, and foundations,
- (d) Deformation of the pipeline or support mechanisms due to expansion and/or contraction,
- (e) Land subsidence, earth slippage, soil erosion, flooding, climate conditions and other natural causes which can result in impressed secondary loads,
- (f) Need for additional repair or replacement of pipeline identification and line markers,
- (g) Inlet and outlet lines of regulator stations subject to movement due to frost, or
- (h) Presence of atmospheric corrosion and/or inadequate condition of protective coatings on exposed piping.

Deficiencies found during the patrol are reported to supervision and appropriate action is taken to correct the problem or minimize risk. Patrolling records are kept on file for at least 5 years, plus the current year.

To identify segments of a distribution system that will require more frequent observations, consideration is given to the following locations:

- (a) Bridge crossings,

- (b) Aerial crossings,
- (c) Unstable river banks,
- (d) Exposed water crossings,
- (e) Areas susceptible to washout,
- (f) Landslide areas,
- (g) Areas susceptible to earth subsidence, such as mines and landfills,
- (h) Tunnels,
- (i) Railroad crossings,
- (j) Attachments to buildings or other structures,
- (k) Facilities or support structures which require maintenance, until repaired, and
- (l) Roof-top mains.

#### **8.2.6.5 Regulator Station Inspections**

The Company has in place a program to inspect and test each pressure limiting station, relief device, and pressure regulating station and its equipment to determine that it is in good mechanical condition, adequate from the standpoint of capacity and reliability of operation for the service in which it is employed, properly installed and protected from dirt, liquid, or other conditions that might prevent proper operation. Regulators are tested to ensure that they operate and control pressure within expected and acceptable limits. Each overpressure protection device, except for rupture discs, is tested to determine if the device is set to operate at the correct pressure. Prompt action is taken to correct deficiencies found during the inspection. Records of each inspection are documented and maintained in accordance with Company record retention procedures. Refer to gas standard GS 1750.010 "Pressure Regulating Station Operation and Maintenance".

#### **8.2.6.6 Regulator Station Capacity Reviews**

The Company has in place a program to evaluate the capacity of each pressure limiting station to determine that it has adequate capacity to supply the connected customers. The methods used in this determination include examining pressure charts or telemetering data, where available, for indications of low pressure; reviewing hydraulic models to assess whether the capacity of each modeled regulator is adequate to meet peak day demand; and reviewing loss of service reports. When such a review indicates that a pressure limiting station is approaching its capacity or the capacity has been exceeded, a plan is developed to verify or remedy the condition. Records of each review are documented and maintained in accordance with Company record retention procedures. Refer to gas standard GS 1752.010 "Pressure Regulating Station Capacity Review".

#### **8.2.6.7 Critical Valve Inspections**

The Company has in place a program to inspect critical valves that are designated by the Company deemed necessary for the safe operation of the system. Each valve is checked for adequate lubrication and proper alignment to permit the use of a key, wrench, handle, or other operating device. Where applicable, each valve box or vault is cleared of any debris that may interfere or delay the operation of the valve. In addition, a sketch, map, or other means of identifying and describing the location of the critical valve and other pertinent information must also be maintained in each operating area. If a valve fails to operate satisfactorily, the Company shall take prompt remedial action unless the Company can designate an alternative valve. Records of each inspection are documented and maintained in accordance with Company record retention procedures. Refer to gas standard GS 1760.010 "Critical Valve Inspection and Maintenance".

### **8.2.7 Material Management**

#### **8.2.7.1 Material Standards**

The Company has a Material Standards process in place that requires all materials used in the transportation of natural gas to

receive a technical review by Gas Standards prior to use in the gas distribution system. The technical review consists of a review of each item with current applicable industry standards as well as federal and state regulations. When applicable, results of third party testing are requested and reviewed prior to approval. A users list is requested and obtained from the manufacturer. All new items for gas service must be evaluated and approved via the Standards Evaluation and Approval process.

#### **8.2.7.2 Failure Reporting Program**

The Company has a program in place for and has established a method for analyzing failures, including the selection of samples of the failed facility or equipment for laboratory examination, where appropriate, for the purpose of determining the causes of the failure and minimizing the possibility of a recurrence. Gas standard GS 1652.010 "Investigation of Failures" has been implemented to formally investigate and document "failures". Facility failures are ordinarily deficiencies in material design, construction, operation and maintenance, associated with:

- (a) An in-service pipeline,
- (b) Materials identified as being defective prior to being placed in-service, such as in the warehouse, during installation, or during testing, or
- (c) Tools and equipment.

Gas Standards assigns an investigator (e.g., standards engineer or specialist, technical specialist) to coordinate the investigation and testing of the failed part, if necessary. The investigator is responsible for obtaining the failed part (if applicable), gathering additional information, engaging internal or external specialists, and deciding if any testing is needed to determine the cause of the failure. When the investigation has been completed, the investigator is also responsible for returning the findings and recommendations to Gas Standards. Gas Standards distributes the findings and recommendations to appropriate personnel. The following types of in-service failures shall be considered for further examination:

- (a) Repeat of similar material failure or construction defect type leaks occurring in the same general area or same year of construction,
- (b) Cracked welds or fusion joints,
- (c) Crack(s) in the body of pipe or fittings,
- (d) Graphitization or cracking of cast-iron pipe, or
- (e) Manufacturing defect in a pipeline component.

In addition, the Company participates in the Plastic Pipe Database Collection Initiative to collect, report, and analyze data on components used by the gas industry.

## **8.2.8 Failure Mitigation Programs**

### **8.2.8.1 Excess Flow Valves**

An Excess Flow Valve (EFV) is a cartridge valve inside the pipe that immediately closes (“trips”) when the flow exceeds its designed limit at a certain pressure. Its intent is to stop the flow when a line ruptures or is damaged, normally severed by an excavator. OMP 1390 “Excess Flow Valves” and GS 3020.100 “Installation of Excess Flow Valves” describes the use of these valves.

Excess flow valves are installed on any new or replaced service lines serving a single-family residence, unless at least one of the following conditions is present:

- (a) The service line does not operate at a pressure of 10 psig or greater throughout the year,
- (b) The Company has prior experience with contaminants in the gas stream that could interfere with the valves operation or cause loss of service to a residence,
- (c) An EFV could interfere with the necessary operation or maintenance activities, such as blowing liquids from the line, or
- (d) An EFV meeting defined performance standards is not commercially available.

When installed, an EFV should be placed as close to the service tee as possible.

#### **8.2.8.2 SCADA**

The Company has electronic monitoring in place for select point of delivery stations, district stations and some large customers. This monitoring includes active as well as passive forms of telemetering. Active forms of telemetering include pressure and flow control. Passive forms of telemetering may include pressure, flow rate, gas temperatures, and water bath temperature monitoring. SCADA alarms are set to alert Energy Supply Services (24 hour monitoring center) of any events that occur outside alarm parameters. When such an alarm event occurs, Energy Supply Services will notify the appropriate Company personnel.

#### **8.2.8.3 Odor Level Monitoring**

The Company has in place a program to monitor the proper concentration of odorant in distributions systems, including propane (LPG) distribution systems. Refer to gas standard GS 1670.020 "Odor Level Monitoring".

To assure the proper concentration of odorant, trained personnel perform periodic sampling to determine the percentage of gas in air at which the odor becomes readily detectable. Records, including the name of the person conducting the test, the date and location of the test are documented and retained in accordance with Company record retention procedures.

Sampling points are distributed throughout the system to provide data samples that are representative of the entire distribution system. If insufficient odorant levels are detected in the system, supervision is contacted and appropriate steps are taken to correct the problem.

#### **8.2.8.4 Relief Valve Capacity Review**

Once a year, a review of primary relief valves is performed to verify that their capacity exceeds that of upstream regulation. If regulation characteristics associated with the primary relief valve

have changed from the previous review, an evaluation of the capacity of the relief valve is done. Either the relief valve or the controlling regulation will be changed so that the capacity of the relief valve exceeds the capacity of the control regulation. Refer to gas standard GS 1750.040 "Relief Devices Inspections and Maintenance".

#### **8.2.8.5 Emergency Manual**

The Company maintains an Emergency Manual which contains written procedures aimed at minimizing the hazards resulting from a gas pipeline emergency.

The objectives of the manual are to provide for the appropriate preparation, management, reporting, and review of emergency events as further explained below.

- (a) Preparation objectives are to establish guidelines to ensure that company personnel are prepared to respond to gas pipeline emergencies in an expedient manner, which protects the safety of employees and the public, and minimizes the impact of the emergency on the company, its customers, and the community.
- (b) Management objectives are to provide a framework for the delegation of responsibility, and the clear establishment of employee roles during emergencies and incidents.
- (c) Reporting objectives are to establish reporting guidelines, and effectively communicate to all levels of management, circumstantially sensitive events or incidents on the Company's pipeline facilities, and to provide guidance in submitting telephonic and written reports to DOT and/or State Utility Commissions as required.
- (d) Review objectives include a facilitated, open process of sharing information about pipeline emergency events/incidents with the desired outcomes being increased learning and improved performance. These outcomes will be achieved in an environment of trust with a non-threatening discussion of actions, the sharing of knowledge, and duplication of successes throughout the



organization. The top priority is an increase in the institutional knowledge required to handle pipeline emergency situations.

The written procedures include, but are not limited to, the following:

- (a) Receiving, identifying, and classifying notices of events which require immediate response by the operator,
- (b) Establishing and maintaining adequate means of communication with appropriate fire, police, and other public officials,
- (c) Prompt and effective response to a notice of each type of emergency,
- (d) Training the appropriate operating personnel to assure that they are knowledgeable of the emergency procedures, and
- (e) Reviewing employee activities to determine whether the procedures were effectively followed in each emergency.

### **8.3 IMPLEMENTING ADDITIONAL OR ACCELERATED ACTIONS (A/A) BASED ON RISK**

After the initial risk evaluation and upon all subsequent risk evaluations, the Company will consider the adequacy of the existing risk management activities. The risk evaluation may suggest the need to alter existing activities or implement new measures. When performing the periodic evaluations in accordance with Section 10, the Company will determine if an identified threat or risk requires an additional or accelerated action (A/A). Included within Table D-2: *Summary of Additional or Accelerated Actions* within Appendix D is a summary of A/A which have been determined to be necessary as a result of either the initial risk evaluation, periodic evaluations, or other operations reviews (e.g., the need for a targeted communication identified during a periodic program evaluation of the Public Awareness Plan).

The DIMP Steering Team has the responsibility of identifying the need for A/A actions. This Team was constructed such that it contains representatives from certain core groups. It is expected that decisions made in a given area be strongly influenced by individuals with expertise in that functional area. In some

case, others outside of the DIMP Steering Team may need to be consulted about the feasibility and appropriateness of implementing A/A actions.

## **9.0 MEASUREMENT OF PERFORMANCE, MONITORING RESULTS, AND EVALUATING EFFECTIVENESS**

The objective of this section of the plan is to establish a process by which performance measures are monitored in order to evaluate the effectiveness of the DIMP Program. Performance measures can assist the Company in the ongoing evaluation of perceived threats and risk level. The evaluation of performance measures may lead to unexpected results that may include the recognition of threats not previously identified.

Program evaluations will help the Company answer the following questions:

- (a) Were DIMP Program objectives accomplished?
- (b) Were pipeline integrity and safety effectively improved through the DIMP Program?

### **9.1 PERFORMANCE MEASURES**

The selected performance measures should consist of both threat based measures as well as activity based measures. Threat based measures are used to evaluate the level of risk posed by specific threats. An unfavorable trend could indicate that risk reduction activities are insufficient or ineffective. A favorable trend may be an indication that the threat is being adequately managed. Activity based measures can be used to determine if the risk reduction activities are effective and if they are having the desired outcome. These measures can permit the Company to determine how well the elements of the Program are being implemented.

All performance measures should be measurable, attainable, relevant, supportable, and permit timely evaluations. Most measures should be numeric, as they tend to be more objective, supportable, and measurable. Non-numeric measures should be considered were they would be helpful and practical.

Listings of the Company's selected measures are included in Appendix E within Table E-1: *Performance Measures*. Table E-2: *Performance Measure Collection Process* describes the data source used for the measures and the individual or group responsible for collecting the information.

#### **9.1.1 Required Measures**

The Company will collect data, through data acquisition forms or Work Management data screens that will be compiled to satisfy mandatory

DOT Annual Reporting requirements. Data fields on such forms and Work Management screens will be collected by field personnel during the course of installation, maintenance, operations, or investigative activities. Work activities that require collection of such data includes leak repair, facility replacement, damage investigation, and excavation ticket screening,

The following measures are required by §192.1007(e):

- (a) Number of Hazardous Leaks Either Eliminated or Repaired, per §192.703(c), Categorized by Cause,
- (b) Number of Excavation Damages,
- (c) Number of Excavation Tickets,
- (d) Total Number of Leaks Either Eliminated or Repaired, Categorized by Cause, and
- (e) Number of Hazardous Leaks Either Eliminated or Repaired, per §192.703(c), Categorized by Material.

#### **9.1.2 Other Selected Measures**

In addition to the mandatory measures listed above, the Company has selected many other measures. These measures are listed within Appendix E.

### **9.2 MONITORING RESULTS AND EVALUATING EFFECTIVENESS**

The performance measures within Appendix E are to be collected and documented on an annual basis, and all of the data should reflect the previous calendar year. In accordance with the requirements of Section 10 "Periodic Evaluation and Improvement", the performance measures are analyzed on an annual basis to determine if the goals of the DIMP Program are being achieved.

Leakage performance measures are compared to an established baseline. For most measures, this is to be the average of the previous five calendar years. In some cases, data may not be available for the previous five years. In such situation, the Company will use what data is available; and it could be several years before five years' worth of data is acquired. For each numeric metric, an

average for these periods will be reflected on the Appendix E tables and the baseline averages should be compared to the current year to identify trends.

The baseline averages were designed to consider the variance in leakage survey cycles in an attempt to clarify if a change in leakage rate is the result of a true change in leak rates for similar facilities and not incorrectly influenced by the leak survey schedule itself. For this reason, care should be taken when attempting to make trending judgments on comparisons based on a single year's data. Looking at the average values over a span of years can also address one-time fluctuations that may be within the standard deviation.

## 10.0 PERIODIC EVALUATION AND IMPROVEMENT

The Company's distribution system, the environment in which we operate, and our understanding of our system are seldom static. Thus this plan will need to adapt over time. A systematic process is used to ensure changes are made to relevant program elements to account for changes in our system and environment.

### 10.1 DIMP STEERING TEAM REVIEW

At least once each calendar year, the state-level DIMP Steering Team will gather to review the DIMP Program. The DIMP Coordinator is responsible for scheduling these meetings and determining the appropriate personnel to participate in this review.

The DIMP Coordinator may call additional DIMP Steering Team meetings outside of the annual review should the need arise, such as upon the discovery of a potential threat which, in the opinion of the DIMP Coordinator, needs to be addressed prior to the next scheduled annual review.

As described in Section 2.1.3, the group will generally consist of the following:

- (a) Operations Center leadership,
- (b) System Operations leadership,
- (c) Field Engineering leadership,
- (d) Compliance Management,
- (e) Damage Prevention,
- (f) Communications,
- (g) Pipeline Safety & Compliance, and
- (h) Other personnel that may provide significant input.

Considerations and activities that may be involved in this review are described below.

- (a) Editorial Plan Updates:
  - (1) Changes in contact information for state commissions,
  - (2) Changes in department names and titles, and
  - (3) Changes in referenced gas standards (including consideration given to referencing additional standards).

(b) Updates to System Knowledge:

- (1) Review of Safety Related Conditions reported during the previous year,
- (2) Review of reportable incidents that occurred during the previous year,
- (3) Updates to Appendix A tables,
- (4) Review of PHMSA Advisory Bulletins issued during past year to ensure appropriate corrective actions were taken, if needed,
- (5) Review facility failure reports submitted during the previous year to identify trends,
- (6) Review state commission inspection findings,
- (7) Identify if there are changes in the Company's understanding of the system characteristics (design, operations, or environmental factors) that could change the identified threats or risk level,
- (8) Identify issues discovered during the performance of routine O&M activities that may have implications for the DIMP program,
- (9) Identify if there is the need to fill gaps due to missing, inaccurate, or incomplete records,
- (10) Identify if new data is needed, and
- (11) Review Annual DOT Report.

(c) Updates to Threat Identification:

- (1) Review threat identification table for changes in threats, including new threats discovered or changes in the understanding of the scope of existing threats and
- (2) Consider if there are potential threats which require further investigation to determine their significance, including any issues documented on form 5-1. Review any form in which the status is "In Progress" to ensure sufficient progress towards resolution.

(d) Updates to Risk Evaluation:

- (1) Review and update, if necessary, the tables within Appendix C (if changes to risks are determined to be significant an A/A measure may be identified).
- (e) Updates to Risk Reduction Activities and Additional or Accelerated Activities:
- (1) Review active corrosion log, and
  - (2) Consider changes made in other compliance programs (e.g., Damage Prevention, Public Awareness, etc.) or the need to precipitate changes in those programs,
  - (3) Consider the need for additional A/A measures or the need to make changes to existing measures, and
  - (4) Evaluation of the effectiveness of existing A/A measures.
- (f) Updates to Performance Measures:
- (1) Review performance measures and analyze trends and
  - (2) Review adequacy of selected performance measures.
- (g) Other Considerations:
- (1) Review best practices identified from discussions with peer companies,
  - (2) Consider lessons learned from involvement in trade associations,
  - (3) Review the record retention practices for adequacy, and
  - (4) Determine if the re-evaluation interval is appropriate.

Every five years (date specific), or more frequently if deemed necessary by the DIMP Coordinator, this DIMP Steering Team review will include a complete program re-evaluation, meeting the requirements of 49 CFR § 192.1007(f).

Form DIMP 10-1 is used as the record demonstrating that periodic reviews are being performed. This form shall be completed for each DIMP Steering Team meeting. The DIMP Coordinator is responsible for the completion and filing of this form.

Updates to the DIMP Plan that are identified during this review will be processed and approved in accordance with Section 2.2 of this Plan. Non-editorial changes to plan Sections 1 through 11 will be presented to the DIMP SMR Team for their



consideration and endorsement. While revisions to the documents within the appendices are not approved by the DIMP SMR Team, those that result in or reflect significant program changes will be shared with that group during the review process described in Section 10.2.

Prior to proposing changes that could have a moderate or significant impact to Operations, the DIMP Steering Team will, during the course of their periodic review, arrange for all stakeholder groups to contribute to the impact analysis and feasibility assessment. The DIMP Coordinator is responsible for ensuring the review and implementation of changes are accomplished according to a schedule that is commensurate with the urgency.

## **10.2 DIMP SMR TEAM REVIEW**

Following the annual DIMP Steering Team meeting, the DIMP SMR Team will review proposed revisions to the DIMP Plan. The Manager of Distribution Integrity Management Program or the Integrity Management Engineer will schedule the meeting and determine the agenda. Many of the agenda items will mirror those listed in Section 10.1. The team will summarize the discussions that took place during the DIMP Steering Committee meetings.

Form DIMP 10-1 is used as the record demonstrating that periodic reviews are being performed. This form shall be completed for each DIMP SMR Team meeting.

**FIGURE 10-1: Periodic Program Evaluation**

<b>SUMMARY OF DIMP PROGRAM PERIODIC EVALUATION</b>											
Company:		Date(s) of Meeting:									
Evaluation Type: <input type="checkbox"/> Annual Evaluation <input type="checkbox"/> Complete Program Re-Evaluation <input type="checkbox"/> Other:		Evaluation Performed By: <input type="checkbox"/> DIMP Steering Team <input type="checkbox"/> DIMP SMR Team									
Attendees: <table style="width: 100%; border: none;"> <tr> <td style="width: 25%; border: none;">Name:</td> <td style="width: 25%; border: none;">Job Title:</td> <td style="width: 25%; border: none;">Name:</td> <td style="width: 25%; border: none;">Job Title:</td> </tr> <tr> <td style="height: 100px;"></td> <td></td> <td></td> <td></td> </tr> </table>				Name:	Job Title:	Name:	Job Title:				
Name:	Job Title:	Name:	Job Title:								
Updates to System Knowledge											
Are further actions needed based on a review of Safety Related Conditions reported during the previous year? <input type="checkbox"/> Yes <input type="checkbox"/> No <i>Comments:</i>											
Are further actions needed based on a review of reportable incidents reported during the previous year? <input type="checkbox"/> Yes <input type="checkbox"/> No <i>Comments:</i>											
Are changes needed to Appendix A tables? <input type="checkbox"/> Yes <input type="checkbox"/> No <i>Comments:</i>											
List PHMSA Advisory Bulletins issued during past year. If corrective actions are deemed necessary, describe actions. Otherwise, describe why no corrective actions are needed.											
Are further actions needed based on a review of facility failure reports received during the previous year? <input type="checkbox"/> Yes <input type="checkbox"/> No <i>Comments:</i>											
Are further actions needed based on a review of state commission inspection findings received during the previous year? <input type="checkbox"/> Yes <input type="checkbox"/> No <i>Comments:</i>											
Are there changes in the Company's understanding of system characteristics (design, operations, or environmental factors) that could change the identified threats or risk level? <input type="checkbox"/> Yes <input type="checkbox"/> No <i>Comments:</i>											
Were issues identified during the performance of routine O&M activities that may have implications for the DIMP program? <input type="checkbox"/> Yes <input type="checkbox"/> No <i>Comments:</i>											
Is there an identified need to fill gaps in data due to missing, inaccurate, or incomplete records? <input type="checkbox"/> Yes <input type="checkbox"/> No <i>Comments:</i>											
Is there an identified need for new data to be acquired to support the DIMP program? <input type="checkbox"/> Yes <input type="checkbox"/> No <i>Comments:</i>											
Are further actions needed based on a review of the Annual DOT Report? <input type="checkbox"/> Yes <input type="checkbox"/> No <i>Comments:</i>											

**FIGURE 10-1 (cont.): Periodic Program Evaluation**

<b>Updates to Threat Identification</b>
Are there identified changes needed in threats or updates to Appendix B tables? <input type="checkbox"/> Yes <input type="checkbox"/> No <i>Comments:</i>
Are there identified "potential threats" which require further investigation, including issues identified on Form 5-1? <input type="checkbox"/> Yes <input type="checkbox"/> No <i>Comments:</i>
<b>Updates to Risk Evaluation</b>
Is there a need to update the tables within Appendix C? <input type="checkbox"/> Yes <input type="checkbox"/> No <i>Comments:</i>
<b>Updates to Risk Reduction Activities and Additional or Accelerated Activities</b>
Are further actions needed based on a review of the active corrosion log? <input type="checkbox"/> Yes <input type="checkbox"/> No <i>Comments:</i>
Were changes made in other compliance programs, or need to be made, that require further action for DIMP purposes? <input type="checkbox"/> Yes <input type="checkbox"/> No <i>Comments:</i>
Are changes needed in current A/A measures or is there a need for additional A/A measures or changes in Appendix D tables? <input type="checkbox"/> Yes <input type="checkbox"/> No <i>Comments:</i>
Do current A/A measures appear to be sufficiently effective? <input type="checkbox"/> Yes <input type="checkbox"/> No <i>Comments:</i>
<b>Updates to Performance Measures</b>
Are changes needed based on a review of performance measures or changes in Appendix E tables? <input type="checkbox"/> Yes <input type="checkbox"/> No <i>Comments:</i>
Are current performance measures adequate? <input type="checkbox"/> Yes <input type="checkbox"/> No <i>Comments:</i>
<b>Editorial Plan Updates</b>
Are changes needed in contact information for state commissions? <input type="checkbox"/> Yes <input type="checkbox"/> No <i>Comments:</i>
Are changes needed in department names and titles or changes to Table F-1? <input type="checkbox"/> Yes <input type="checkbox"/> No <i>Comments:</i>
Are references to gas standards still accurate and appropriate? <input type="checkbox"/> Yes <input type="checkbox"/> No <i>Comments:</i>
Are references to additional gas standards needed? <input type="checkbox"/> Yes <input type="checkbox"/> No <i>Comments:</i>
Describe any other editorial changes identified:
<b>Other Considerations</b>
Are changes needed based on best practices identified from discussions with peer companies? <input type="checkbox"/> Yes <input type="checkbox"/> No <i>Comments:</i>
Are changes needed based on lessons learned from involvement in trade associations? <input type="checkbox"/> Yes <input type="checkbox"/> No <i>Comments:</i>
Are changes needed to the Company's process of record retention? <input type="checkbox"/> Yes <input type="checkbox"/> No <i>Comments:</i>
Is the established re-evaluation interval appropriate? <input type="checkbox"/> Yes <input type="checkbox"/> No <i>Comments:</i>

## 11.0 REPORTING RESULTS

The following four performance measures are included on Form PHMSA F 7100.1-1 "Annual Report for Gas Distribution Systems". This report is submitted annually, by March 15th, to PHMSA and the state commission, as required by 49 CFR, § 191.11.

- (a) Number of hazardous leaks either eliminated or repaired, per § 192.703(c), categorized by cause,
- (b) Number of excavation damages,
- (c) Number of excavation tickets, and
- (d) Total number of leaks either eliminated or repaired, per §192.703(c), categorized by cause.

Form PHMSA F7100.1-1 and PHMSA's instructions for completing the form, which are used to define the scope of the performance measures and the reporting requirements, are available on the PHMSA internet website at <http://www.phmsa.dot.gov/pipeline>. The completed form is submitted to PHMSA using the online data entry feature on their website. Copies of this form are sent to the following state commission contact.

Jason Brangers  
Manager, Gas Branch  
Kentucky Public Service Commission  
211 Sower Boulevard  
Frankfort, KY 40601  
E-mail: [jason.brangers@ky.gov](mailto:jason.brangers@ky.gov)

Information related to failure of mechanical fittings, excluding those that result only in nonhazardous leaks, are to be reported on Form PHMSA F7100.1-2, beginning with the report for the 2011 calendar year. **Mechanical fitting** means a mechanical device used to connect sections of pipe. The term applies only to: (1) stab type fittings, (2) nut follower type fittings, (3) bolted type fittings, or (4) other compression type fittings.

Readily available information from this list of mechanical fitting data points will be gathered by field personnel upon failure of any mechanical fitting. Data gathered during the investigation of mechanical fitting failures will be gathered in the Company's Facility Failure Database Reporting System.

Form PHMSA F7100.1-2 and PHMSA's instructions for completing the form are also available on the PHMSA internet website. The completed form is submitted

to PHMSA using the online data entry feature on their website. Copies of this form are sent to the state commission contact listed above.

## **APPENDIX A: KNOWLEDGE OF DISTRIBUTION SYSTEM**

### **Contents:**

- Figure A-1: Annual DOT Report for Gas Distribution Systems
- Table A-1: IM Program Records Summary
- Table A-2: Action Plans to Enhance Knowledge
- Table A-3: Summary of System Design by Pressure
- Table A-4: Summary of Systems Transporting Gas Other Than Natural Gas
- Table A-5: Summary of Known Construction Practices
- Table A-6: Known District Regulators and Relief Valves
- Table A-7: Known Service Regulators
- Table A-8: Areas Subject to Seismic Damage
- Table A-9: Areas Subject to Frost Heave
- Table A-10: Known Areas Subject to Historical Land movement / Erosion Damage
- Table A-11: Reportable Gas Incidents Summary by Year
- Table A-12: Reportable Gas Incidents by Cause
- Table A-13: Number of Leaks Eliminated/Repaired
- Table A-14: Leak Incidence Rates – Eliminated/Repaired Leaks

Figure A-1: Annual DOT Report for Gas Distribution Systems

NOTICE: This report is required by 49 CFR Part 191. Failure to report can result in a civil penalty not to exceed 100,000 for each violation for each day that such violation persists except that the maximum civil penalty shall not exceed \$1,000,000 as provided in 49 USC 60122.

OMB NO: 2137-0522  
 EXPIRATION DATE: 01/31/2014



U.S Department of Transportation  
 Pipeline and Hazardous Materials Safety Administration

Form Type: INITIAL

ID: 13458

(DOT use only) 20121002-16068

**ANNUAL REPORT FOR  
 CALENDAR YEAR 2011  
 GAS DISTRIBUTION SYSTEM**

A federal agency may not conduct or sponsor, and a person is not required to respond to, nor shall a person be subject to a penalty for failure to comply with a collection of information subject to the requirements of the Paperwork Reduction Act unless that collection of information displays a current valid OMB Control Number. The OMB Control Number for this information collection is 2137-0522. Public reporting for this collection of information is estimated to be approximately 16 hours per response, including the time for reviewing instructions, gathering the data needed, and completing and reviewing the collection of information. All responses to this collection of information are mandatory. Send comments regarding this burden estimate or any other aspect of this collection of information, including suggestions for reducing this burden to: Information Collection Clearance Officer, PHMSA, Office of Pipeline Safety (PHP-30) 1200 New Jersey Avenue, SE, Washington, D.C. 20590.

**PART A - OPERATOR INFORMATION**

1. Name of Operator	COLUMBIA GAS OF KENTUCKY INC
2. LOCATION OF OFFICE (WHERE ADDITIONAL INFORMATION MAY BE OBTAINED)	
2a. Street Address	2001 Mercer Road
2b. City and County	Lexington, Fayette
2c. State	KY
2d. Zip Code	40512
3. OPERATOR'S 5 DIGIT IDENTIFICATION NUMBER	2585
4. HEADQUARTERS NAME & ADDRESS	
4a. Street Address	2001 Mercer Road
4b. City and County	Lexington, Fayette
4c. State	KY
4d. Zip Code	40512
5. STATE IN WHICH SYSTEM OPERATES	KY

**PART B - SYSTEM DESCRIPTION**

**1. GENERAL**

	STEEL				PLASTIC	CAST/ WROUGHT IRON	DUCTILE IRON	COPPER	OTHER	TOTAL
	UNPROTECTED		CATHODICALLY PROTECTED							
	BARE	COATED	BARE	COATED						
MILES OF MAIN	449.000	0.000	5.000	830.000	1240.000	21.000	0.000	0.000	12.000	2557.000
NO. OF SERVICES	12005.000	0.000	143.000	22184.000	103763.000	0.000	0.000	0.000	0.000	138095.000

Figure A-1: Annual DOT Report for Gas Distribution Systems

2. MILES OF MAINS IN SYSTEM AT END OF YEAR							
MATERIAL	UNKNOWN	2" OR LESS	OVER 2" THRU 4"	OVER 4" THRU 8"	OVER 8" THRU 12"	OVER 12"	TOTAL
STEEL	0.000	208.000	608.000	337.000	114.000	19.000	1284.000
DUCTILE IRON	0.000	0.000	0.000	0.000	0.000	0.000	0.000
COPPER	0.000	0.000	0.000	0.000	0.000	0.000	0.000
CAST/WROUGHT IRON	0.000	0.000	17.000	4.000	0.000	0.000	21.000
PLASTIC PVC	0.000	0.000	0.000	0.000	0.000	0.000	0.000
PLASTIC PE	0.000	679.000	467.000	94.000	0.000	0.000	1240.000
PLASTIC ABS	0.000	0.000	0.000	0.000	0.000	0.000	0.000
OTHER PLASTIC	0.000	0.000	0.000	0.000	0.000	0.000	0.000
OTHER	12.000	0.000	0.000	0.000	0.000	0.000	12.000
TOTAL	12.000	887.000	1090.000	435.000	114.000	19.000	2557.000

3. NUMBER OF SERVICES IN SYSTEM AT END OF YEAR				AVERAGE SERVICE LENGTH: 75			
MATERIAL	UNKNOWN	1" OR LESS	OVER 1" THRU 2"	OVER 2" THRU 4"	OVER 4" THRU 8"	OVER 8"	TOTAL
STEEL	0.000	4023.000	29927.000	226.000	155.000	1.000	34332.000
DUCTILE IRON	0.000	0.000	0.000	0.000	0.000	0.000	0.000
COPPER	0.000	0.000	0.000	0.000	0.000	0.000	0.000
CAST/WROUGHT IRON	0.000	0.000	0.000	0.000	0.000	0.000	0.000
PLASTIC PVC	0.000	0.000	0.000	0.000	0.000	0.000	0.000
PLASTIC PE	0.000	98025.000	5249.000	409.000	80.000	0.000	103763.000
PLASTIC ABS	0.000	0.000	0.000	0.000	0.000	0.000	0.000
OTHER PLASTIC	0.000	0.000	0.000	0.000	0.000	0.000	0.000
OTHER	0.000	0.000	0.000	0.000	0.000	0.000	0.000
TOTAL	0.000	102048.000	35176.000	635.000	235.000	1.000	138095.000

4. MILES OF MAIN AND NUMBER OF SERVICES BY DECADE OF INSTALLATION											
	UNKNOWN	PRE-1940	1940-1949	1950-1959	1960-1969	1970-1979	1980-1989	1990-1999	2000-2009	2010-2019	TOTAL
MILES OF MAIN	167.000	109.000	54.000	322.000	526.000	228.000	380.000	478.000	276.000	17.000	2557.000
NUMBER OF SERVICES	0.000	9.000	654.000	12206.000	18028.000	13800.000	22243.000	39935.000	26131.000	5089.000	138095.000



Figure A-1: Annual DOT Report for Gas Distribution Systems

PART C - TOTAL LEAKS AND HAZARDOUS LEAKS ELIMINATED/REPAIRED DURING THE YEAR				
CAUSE OF LEAK	MAINS		SERVICES	
	TOTAL	HAZARDOUS	TOTAL	HAZARDOUS
CORROSION	192	26	648	306
NATURAL FORCES	11	2	33	15
EXCAVATION DAMAGE	43	42	131	127
OTHER OUTSIDE FORCE DAMAGE	0	0	0	0
MATERIAL OR WELDS	8	2	23	4
EQUIPMENT	4	1	21	3
INCORRECT OPERATIONS	40	2	194	29
OTHER	32	4	66	21
NUMBER OF KNOWN SYSTEM LEAKS AT END OF YEAR SCHEDULED FOR REPAIR : 117				
PART D - EXCAVATION DAMAGE			PART E-EXCESS FLOW VALUE(EFV) DATA	
NUMBER OF EXCAVATION DAMAGES: <u>162</u>			NUMBER OF EFV'S INSTALLED THIS CALENDER YEAR ON SINGLE FAMILY RESIDENTIAL SERVICES: <u>1113</u>	
NUMBER OF EXCAVATION TICKETS : <u>36133</u>			ESTIMATED NUMBER OF EFV'S IN SYSTEM AT THE END OF YEAR: <u>26206</u>	
PART F - LEAKS ON FEDERAL LAND			PART G-PERCENT OF UNACCOUNTED FOR GAS	
TOTAL NUMBER OF LEAKS ON FEDERAL LAND REPAIRED OR SCHEDULED TO REPAIR: <u>0</u>			UNACCOUUNTED FOR GAS AS A PERCENT OF TOTAL INPUT FOR THE 12 MONTHS ENDING JUNE 30 OF THE REPORTING YEAR.	
			INPUT FOR YEAR ENDING 6/30: <u>1.1%</u>	
PART H - ADDITIONAL INFORMATION				
PART I - PREPARER AND AUTHORIZED SIGNATURE				
<u>Brian Powell, Integrity Management Engineer</u> (Preparer's Name and Title)			<u>(614) 481-1069</u> (Area Code and Telephone Number)	
<u>bpowell@nisource.com</u> (Preparer's email address)			<u></u> (Area Code and Facsimile Number)	

**Table A-1, Part 1: IM Program Records Summary**

Record	Record Type SME = Subject Matter Expert  ER = electronic PR = paper record	Applicable Standard or Guideline	How Record Used For DIMP	Location of Records	Key Contact
Operating Maps	ER, PR	GS 2600 Series	System Knowledge	ER – various viewers; PR – Company offices	Director, Business Application & Support
Gas Service Records	ER	GS 3020.012	Optimain / System Knowledge	DIS, On-Base	Director, Business Application & Support
Work Orders and As-Built Construction Drawings	ER, PR	2810.020	System Knowledge	ER – WMS; PR – Company offices	Director, Engineering
Gas Leak Repair Records	ER, PR	GS 1708.100	Risk Assessment (probability & consequence) / Optimain /metrics	ER – WMS; PR – DPI files at Operation Center	ER – Dir, Business Application & Support PR – Op Center Manager
Gas Leak Survey Records	ER, PR	GS 1708.100	System Knowledge	ER – WMS; PR – leakage maps at Operation Center	ER – Dir, Business Application & Support PR – Mgr, System Ops
DOT/PHMSA Incident Reports	ER	OMP 1020	Risk Assessment (consequence)	Compliance Manager files	Compliance Manager
Safety-Related Condition Reports	ER	GS 1020.010	Risk Assessment (consequence)	Compliance Manager files	Compliance Manager
Cathodic Protection Maintenance Records (Rectifier and Pipe-to-Soil Inspection)	ER	GS 1430.020	System Knowledge	WMS	Manager, System Operations
CP Maintenance of Isolated Mains and Services	ER	GS 1430.020	System Knowledge	WMS	Manager, System Operations
Active Corrosion Area Logs	PR	GS 1430.030	Prioritizes areas for replacement	Operations Center Office	Operations Center Manager / Manager System Operations
Atmospheric Corrosion Inspection Records	ER	GS 1450.010	RA (probability)	WMS and DIS	Manager, System Operations

**Table A-1, Part 1: IM Program Records Summary**

Record	Record Type SME = Subject Matter Expert  ER = electronic PR = paper record	Applicable Standard or Guideline	How Record Used For DIMP	Location of Records	Key Contact
Patrol Records	ER	GS 1702.010	Identifies locations susceptible to natural forces	WMS	Dir, Business Application & Support
Critical Valve Books	PR	GS 1760.010	System knowledge	Operations Center	Leader, M&R Field Operations Leader
Valve Maintenance Records	ER	GS 1760.010	System knowledge	WMS	Director, Business Application & Support
Regulator Station Maintenance Records	ER, PR	GS 1750.010	Quantities risk probability for equipment failure	ER – WMS; PR – M&R Stations	ER – Dir, Business Application & Support PR – Mgr, System Ops
Facility Failure Reports	ER	GS 1652.010	Trend summary reviewed annually; used for RA (probability)	MS Access database on network drive	Manager, Gas Standards
Pipe Exposure Data	ER, PR	GS 1410.010	Data used in Optimain analysis	ER – WMS PR – DPI files at Operations Center	Dir, Business Application & Support Operations Center Mgr
One Call Records	ER	n/a	Data used in root cause analysis; preventative excavation inspections	Irth	Manager, Damage Prevention; Compliance Manager
Excavation Damage Records	ER	GS 1100.030	Data used in root cause analysis	WMS, DPTS	Manager, Damage Prevention; Compliance Specialist

**Table A-1, Part 2: IM Program Records Summary**

	Characteristic	Record Source	Comment
Design & Construction	Location	Operating Maps	Locations of newly installed mains are described on a sketch and included in the job order completion report. Engineering uses the drawing to map the facility in GIS.
	Material	Operating Maps	Pipe material type is designated as either Plastic, Steel, Wrought Iron, Cast Iron, or Other. Fittings are usually labeled as either metallic or plastic.
	Component Type	Operating Maps	The Company uses standard mapping designations to represent the type of components.
	Nominal Size	Operating Maps	Nominal pipe size is shown on operating maps for pipes, valves, and fittings.
	Manufacturer	Work Orders & Completion Reports	Materials ordered for a capital job are listed by a stock symbol number on the WMS job order. The Supply Chain is usually able to determine which manufacturer the material was purchased from over a given span of time.
	Date of Installation	Operating Maps	The WMS job order contains a data field showing the date the line was placed in service. When Engineering maps the line in GIS, the in-service date from the job order is populated.
	Joining Type	Operating Maps	Steel pipe that is mechanically coupled is mapped as such on the operating maps.
	Pipe Specifications	Work Orders & Completion Reports	For steel and plastic pipe, pipe used is shown by stock symbol number which is described on the WMS job order and completion report. The stock symbol number contains a description which indicates the pipe grade and wall thickness for steel and SDR and ASTM designation for plastic.
	Coating Type	Operating Maps; Work Orders & Completion Reports	Job order sketches included in the completion report label steel pipe segments as being bare or coated. Engineering populates the coating type based on this information. The stock symbol number specified on the WMS job order contains a description that includes the coating type.
	Construction Method	Work Orders & Completion Reports	Most new pipe is installed by contractors. In many cases, the installation of pipe by boring is paid as a special line item than direct burial. Since WMS contains a list of contract items paid, it is often times possible to review the job order information to determine if boring was performed for a particular job order.

**Table A-1, Part 2: IM Program Records Summary**

	Characteristic	Record Source	Comment
Operating Conditions	Pressure	Operating Maps	The pressure designation (LP, IP, MP, and HP) are shown on operating maps as a pipe attribute. The pressure system is also included. A table in DIS can be used to cross reference a system number with the MAOP.
	CP Type	CP Maintenance Records	The type of cathodic protection is an attribute of a test station facility within the work management system.
	Leak History	Gas Leak Repair Records	Hard copies of leak reports are retained for the life of the pipeline. The data is entered into WMS and permanently retained. Leak records are refreshed quarterly within Optimain.
	Pipe Condition	Pipe Exposure Data	Pipe condition is a data field on the pipe exposure section of the leak report. This data is used by Optimain to assign a risk score.
	Coating Condition	Pipe Exposure Data	Coating condition is a data field on the pipe exposure section of the leak report. This data is used by Optimain to assign a risk score.
	Pipe Depth	Pipe Exposure Data	Coating condition is a data field on the pipe exposure section of the leak report. This data is used by Optimain to assign a risk score.
	Electrical Isolation Devices	CP Maintenance of Isolated Mains and Services	Locations of insulations can be shown on the GIS maps.
	Stray Current Mitigation	CP Maintenance Records	These features (e.g., bonds) are assigned as a facility in the work management system.

**Table A-1, Part 2: IM Program Records Summary**

	Characteristic	Record Source	Comment
Operating Environmental Factors	Land Subsidence	Patrol Records & Table A-10	Distribution facilities in which there is a concern of potential land subsidence are patrolled on a periodic basis. Field Operations Leaders reviewed Repetitive Tasks (RTs) within WMS to identify which distribution patrols are related to earth movement concerns. These locations are reflected on Table A-10.
	Earthquake Zone	Table A-8	Table A-8 reflects information from the United States Geological Society (USGS) that depicts Kentucky as being of low risk to earthquakes. This information supports the SMEs decision to consider earthquake risks to be low.
	Frost	Table A-9	Table A-9 is included in the plan to illustrate that Kentucky is indeed located in an area which experiences fairly significant frost depths. This can have an effect on cast iron facilities.
	Business Districts	Gas Leak Survey Records	Gas facilities locating within business districts are leak surveyed on a more frequent basis as a result of the higher risk posed by these areas. The locations of the business districts are indicated on leak survey records.
	Soil Type	Pipe Exposure Data	Soil type is a data field on the pipe exposure section of the leak report. This data is used by Optimain to assign a risk score.
	Type of Ground Cover	Pipe Exposure Data	Soil type removed is a data field on the pipe exposure section of the leak report. This data is used by Optimain to assign a risk score.
	Population Density	Optimain	Optimain uses population density as a risk factor. The factor is based on the population density of the zip in which the pipe segment resides.
	Building Use	Operating Maps	Optimain contains a data field for building use which may be populated by Engineering to assign a greater risk score to pipe segments in the vicinity of buildings that may be more difficult to evacuate (e.g., hospitals, schools, prisons, etc.)
	Service Length	Gas Service Records	Field crews document the length of service on the service line order. This length is populated in DIS. Service records are periodically imported into Optimain, with the service length used as a proxy for estimating building offset for use in estimating risk scores.

**Table A-2: Action Plans to Enhance Knowledge**

Action Plan Scope	Summary of Action Plan	Detail Notes	Proposed Schedule	Completion Date	Officer / Manager Responsible
Develop methods to track EFV installations by calendar year	Identify DIS data elements that will verify EFV installation and customer type.	"Date", "Customer Class" and "EFV Installed (Y/N)" exist as data fields in DIS that identifies necessary information on case by case basis.		Completed in time for CY 2010 Annual DOT Report submittal (3/15/2011)	Gary Miller
	Design and implement programming change to facilitate above reporting				
Data recorded for new installations and O&M activities	Investigate the feasibility of collecting and utilizing additional data to enhance knowledge	Research state of technology within the industry with respect to material tracking. Research capabilities of future GIS. Participation in GTI project "Intelligent Utility Installation Process".	Pilot project is underway and implementation will depend upon the success of the pilot		Dan Cote
Adjust WMS data element options to better represent identified threats around damage to facilities	Analyze existing WMS Damage Reporting data elements that contribute toward root cause information	"Cause of Damage", "Reason for Damage", and "Type" contain critical data that determines threats identified for DIMP		Completed January 2012	Gary Miller
	Map historical data validation lists from above categories to proposed data validation lists that will align	Data map created to translate multiple options to proposed			

**Table A-2: Action Plans to Enhance Knowledge**

Action Plan Scope	Summary of Action Plan	Detail Notes	Proposed Schedule	Completion Date	Officer / Manager Responsible
	with identified threats	options for root causes and DIMP threats			
	Submit IT request to revise validation lists				
	Design and implement programming change to facilitate above proposal				
Adjust WMS data element options to better represent identified threats around leakage	Analyze existing WMS Leakage Reporting data elements that contribute toward root cause and facility information	"Leak Cause Code" and "Leak Location Code" contain critical data that determines DIMP threats		Completed January 2012	Gary Miller
	Map historic data validation lists from above categories to proposed data validation lists that will align with identified threats				
	Submit IT request to revise validation lists	Merge request with Damage to Facilities WMS request			
	Design and implement programming change to facilitate above proposal				
Determine how GIS can benefit DIMP	Identify and implement changes to DIMP program that takes advantage of the benefits of new GIS system		On-going effort with implementation schedules established as opportunities are identified		Dan Cote



**Table A-2: Action Plans to Enhance Knowledge**

Action Plan Scope	Summary of Action Plan	Detail Notes	Proposed Schedule	Completion Date	Officer / Manager Responsible
Integrate Optimain with GIS	Tie Optimain to GIS. Populate GIS with historical leak data. Develop process of populating leaks periodically into GIS		Target goal of 2/31/2013		Chuck Shafer
Sewer Crossbores	Develop a process for communicating and retaining information when crossbore situations are discovered.		Process developed by 3/31/2013		Dan Cote
MAOP Excursion Form	Develop and communicate a form used to document all MAOP excursions			12/31/2012	Don Ayers
Facility Failure Report Ad-Hoc	Develop a team to create guidance material to better educate field crews on the requirements of the facility failure reporting process.		Guidance material communicated by 3/31/2013		Lee Reynolds

**Table A-3: Summary of System Design by Pressure**

Maximum Operating Pressure	Mains	Services
Low-Pressure (1 psig or less)	24.7%	37.3%
Intermediate Pressure (1 psig to 10 psig)	12.4%	10.6%
Medium Pressure – 10 psig to 60 psig	51.1%	50.0%
High Pressure – greater than 60 psig	11.9%	2.1%

*Source: GIS query for main inventory. Service data is generated on a Business Intelligence Report ("SL Counts By Pressure") by querying DIS.*

**Table A-4: Summary of Systems Transporting Gas Other Than Natural Gas**

System Number	System Name	Gas Transported	Total Capacity (gal)	Address	Comments

There are no systems transporting gas other than natural gas (e.g., liquid petroleum gas, landfill gas, liquefied natural gas, propane air)

Source: DIMP Steering Team input

**Table A-5: Summary of Known Construction Practices**

<b>Construction Methods (Method Used to Install Pipe)</b>	<b>Comments (e.g., issue, location or time periods)</b>
Open Trench	
Directional Bore	
Conventional Bore	
Pipe Insertion	
Joint Trenching	
Dig & Backfill	
Plow Method	

*Source: DIMP Steering Team*

**Table A-6: Known District Regulators and Relief Valves**

Manufacturer	Model or Description	System Count

Source:

*(Note: This list includes only those regulators owned by the Company. A district regulator is a regulator which controls the pressure of a gas system This table is not to be populated as the data is available via a Work Management Report. If the report is needed, e-mail Business Intelligence Report Requests and reference report "Est R funcs with Reg Facs not GMB".)*

**Table A-7: Known Service Regulators**

Manufacturer	Model or Description	Size
Itron, Actaris, Schlumberger, Sprague	B-42R	1", 1-1/4"
	B-31-IMR	1", 1-1/4"
	B-34-IMR	2"
	B-35-M	1"
	B-35-R	1"
	B-35-N	1"
	B-38-IMR	2"
	B-39R	1", 1-1/4"
	B-531-IMR	1-1/4" x 2"
	B-838-IMR	2"x2", 2"x3", 2"x4"
	CL-31-2-IMR	1"
	CL-34-2-IMR	2"
	CL-38-2-IMR	2"
	CL-838-2-IMR	2"x2", 2"x3", 2"x4"
Elster American Meter, American Reliance, Singer	1800	2"
	1813C	1", 1-1/4"
	1833B	1"
	1883	2"
	1883B	1"
	2000	2"
	2003	2"
	2003M	2"
Sensus, Invensus, Equimeter, Rockwell	143	1", 1-1/4"
	243-8-1	1-1/4". 2"
	243-8-2	1-1/4". 2"
	243-12-1	2"
	243-12-2	2"
	243-8HP	2"
	243-RPC-B	2"
	041-2	1"
	046-2	1"

**Table A-7: Known Service Regulators**

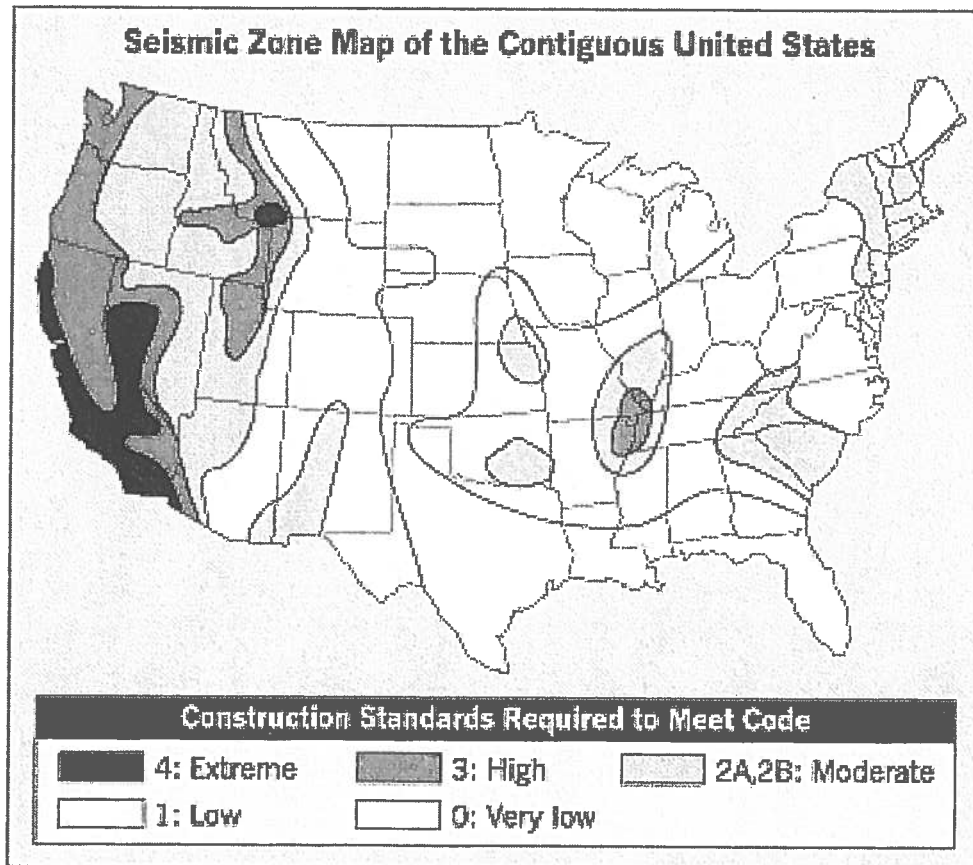
Manufacturer	Model or Description	Size
	1001	2"
Reynolds	8310	2"
	8525	2"
Global Metering Systems, National Meter Parts, Lancaster	61-R	1", 1-1/4"
	496	1", 1-1/4"
Fisher	S-101-P2	2"
	S-102	1", 1-1/4"
	S-106	1"
	S-200	2"
	S-201-P2	2"
	S-202	2"
	S-301-F	1", 1-1/4"
	S-402	1"
	133-L	2"
	133-H	2"
	133-HP	2"
	299	2"
	620	1-1/2", 2"
	621-102	1", 2"
	621-107	1", 2"
	621-R	1", 2"
	621-M	1", 2"
	627-R	1", 2"
627-M	1", 2"	
630-103	1", 2"	
630-104	1", 2"	

Source: Records assembled by Rich Losey based on known Gas Standard records

**Table A-8: Areas Subject to Seismic Damage**

Seismic Zone	Miles of Main 2011	Number of Services 2011
0	0	0
1	2,557	138,095
2	0	0
3	0	0
4	0	0

Source: Inventories taken from Annual DOT Report



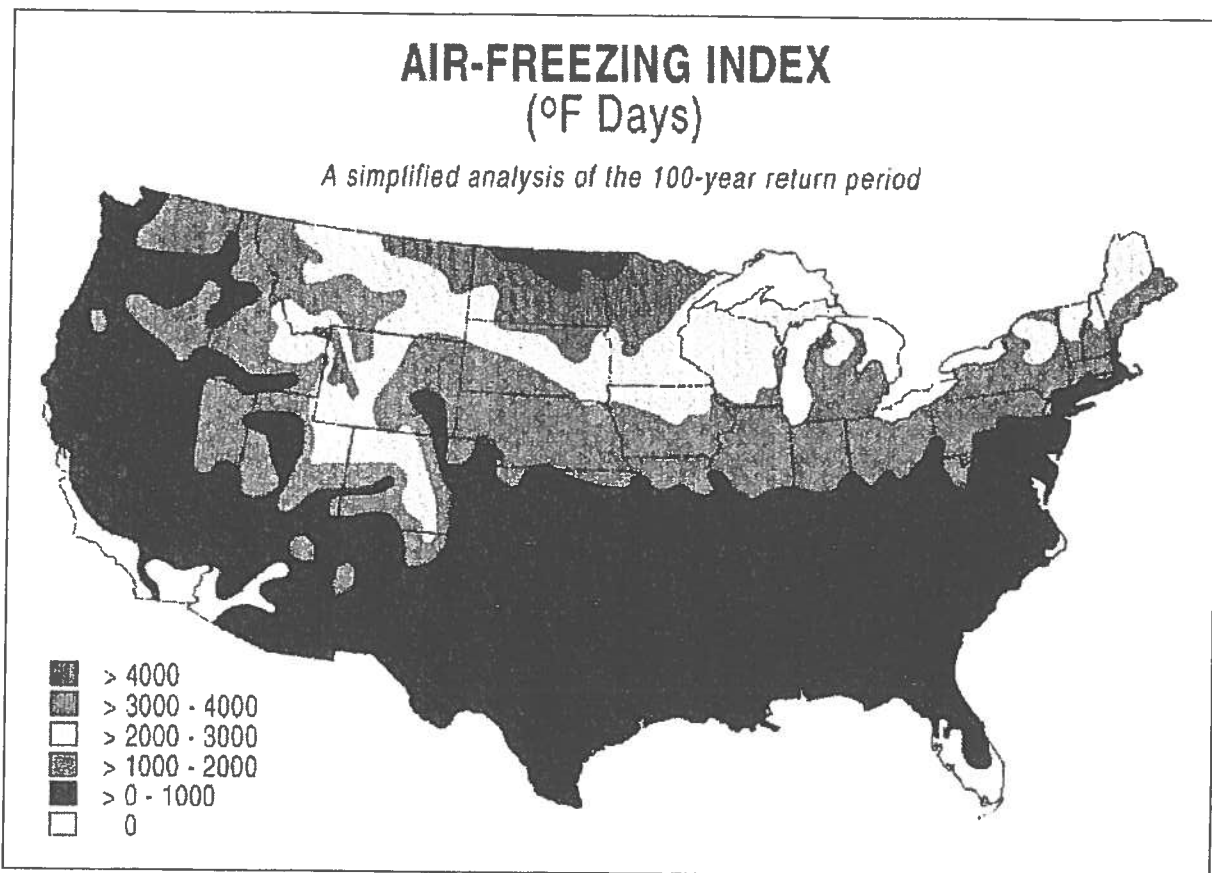


**Table A-9: Areas Subject to Frost Heave**

AFI Category °F Days 100-Yr Return Period	Miles of Main 2011	Number of Services 2011
> 4000	0	0
> 3000 - 4000	0	0
>2000 - 3000	0	0
> 1000 - 2000	0	0
< 1000	2,557	138,095

Source: Inventories taken from Annual DOT Report

AFI = Air Freezing Index, refer to the illustrate below



**Table A-10: Known Areas Subject to Historical Land Movement/Erosion Damage**

TCC	Location	Type of Facility	2312 JO #
2621	1920 Beacon Hill Rd	Exposed pipe	08-7327324-00
2623	973 Taylor Rd	Exposed pipe	10-8254539-00
2629	Levee Rd, Mt	Exposed main	11-9032339-00
2629	Levee Rd, Mt	Exposed main	11-9032329-00
2629	Washington St, Paris	Exposed 2" main	10-8428257-00
2631	Easement /Alfan Ct, Winchester	Exposed main	10-8428222-00
2631	Ashland Dr, Russell, KY	Exposed main	10-8470831-00
2631	Alexander Rd , Summit, KY	Exposed main	10-8470815-00
2631	Cattletts Creek Rd, Catlettsburg	Exposed main	10-8470802-00
2631	Cattletts Creek Rd, Catlettsburg	Exposed main	10-8470807-00
2631	Cattletts Creek Rd Reg Station	Exposed main	11-9128488-00
2631	Pond Run Rd, Raceland	Exposed main	11-9128540-00
2632	R/W Finch Rd	Exposed pipe	09-7819220-00
2632	R/W (Slip area on hill)	Exposed pipe	08-7534253-00

Source: DIMP Steering Team

**Table A-11: Reportable Gas Incidents Summary by Year**

Year	Number of Incidents	Fatalities	Injuries	Property Damage
2011	0	0	0	0
2010	0	0	0	0
2009	0	0	0	0
2008	1	0	0	\$408,567
2007	0	0	0	0
2006	0	0	0	0
2005	0	0	0	0
2004	1	0	0	\$5,589
2003	0	0	0	0
2002	0	0	0	0
2001	0	0	0	0
2000	0	0	0	0
1999	0	0	0	0
1998	0	0	0	0
1997	0	0	0	0
1996	0	0	0	0
<b>Total</b>	<b>2</b>	<b>0</b>	<b>0</b>	<b>\$414,156</b>
5- Year Average (2007-2011)	0.2	0	0	\$81,713
10- Year Average (2002-2011)	0.2	0	0	\$41,416
15- Year Average (1997-2011)	0.134	0	0	\$27,628

*Source: Tim McKune's review of incident data from PHMSA's website*

**Table A-12: Reportable Gas Incidents by Cause**

Year	Corrosion	Natural Forces	Excavation Damage	Outside Force	Material, Weld or Joint Failure	Equipment Failure	Incorrect Operation	Other
2011	0	0	0	0	0	0	0	0
2010	0	0	0	0	0	0	0	0
2009	0	0	0	0	0	0	0	0
2008	0	0	1	0	0	0	0	0
2007	0	0	0	0	0	0	0	0
2006	0	0	0	0	0	0	0	0
2005	0	0	0	0	0	0	0	0
2004	0	0	1	0	0	0	0	0
2003	0	0	0	0	0	0	0	0
2002	0	0	0	0	0	0	0	0
2001	0	0	0	0	0	0	0	0
2000	0	0	0	0	0	0	0	0
1999	0	0	0	0	0	0	0	0
1998	0	0	0	0	0	0	0	0
1997	0	0	0	0	0	0	0	0
1996	0	0	0	0	0	0	0	0
15-Yr Total	0	0	2	0	0	0	0	0

Source: Tim McKune's review of incident data from PHMSA's website

**Table A-13: Number of Leaks Eliminated/Repaired**

			Corrosion		Natural Forces		Excavation Damage		Other Outside Force Damage		Material or Weld Failure		Equipment Failure		Incorrect Operations		Other	
			HAZ	TOTAL	HAZ	TOTAL	HAZ	TOTAL	HAZ	TOTAL	HAZ	TOTAL	HAZ	TOTAL	HAZ	TOTAL	HAZ	TOTAL
			2007	Mains	Bare Steel	36	227	3	4	5	5	0	0	0	0	2	4	20
		Coated Steel	2	18	0	1	4	4	0	0	1	0	2	3	14	0	10	
		Plastic	0	0	1	8	65	65	0	0	3	4	1	2	5	22	2	15
		CI/WI	1	4	2	2	0	0	0	0	1	3	0	0	4	0	3	
		Other	1	1	0	0	0	0	0	0	0	0	0	0	0	0	0	
	Services	Bare Steel	434	864	1	2	20	20	0	0	0	0	2	4	15	5	11	
		Coated Steel	5	10	0	0	4	4	0	0	0	1	0	1	6	1	5	
		Plastic	0	0	16	25	191	193	0	0	3	12	6	32	51	289	20	45
		CI/WI	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
		Other	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	
2008	Mains	Bare Steel	43	236	1	2	10	10	0	0	0	0	2	3	20	0	8	
		Coated Steel	3	21	1	2	4	4	0	0	0	0	1	1	9	4	8	
		Plastic	0	0	1	4	52	55	0	0	1	2	0	3	2	23	2	14
		CI/WI	0	2	0	0	1	1	0	0	0	2	0	1	2	12	0	1
		Other	1	1	0	0	0	0	0	0	0	0	0	0	0	0	0	
	Services	Bare Steel	432	854	0	0	9	11	0	0	1	1	0	2	3	14	4	9
		Coated Steel	16	25	2	2	3	3	0	0	0	0	1	0	5	3	5	
		Plastic	0	0	16	31	166	169	0	0	3	13	10	46	86	412	11	40
		CI/WI	1	1	0	0	0	0	0	0	0	0	0	0	0	0	0	
		Other	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
2009	Mains	Bare Steel	37	303	0	0	5	5	0	0	0	0	3	3	23	2	10	
		Coated Steel	5	20	0	0	1	1	0	0	0	1	0	2	3	15	1	8
		Plastic	0	0	0	3	39	39	0	0	0	3	1	2	6	22	1	12
		CI/WI	0	6	2	4	1	1	0	0	2	2	0	1	8	0	2	
		Other	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	
	Services	Bare Steel	640	1094	1	1	9	9	0	0	1	2	1	2	10	22	4	11
		Coated Steel	19	57	0	0	2	2	0	0	1	2	0	2	1	14	3	5
		Plastic	0	0	12	22	137	141	0	0	3	35	8	43	69	384	19	42
		CI/WI	0	2	0	0	0	0	0	0	0	0	0	0	0	0	0	
		Other	0	0	0	0	1	0	0	0	0	0	0	0	0	0	1	
2010	Mains	Bare Steel	32	207	4	0	6	6	0	0	0	0	1	2	10	1	13	
		Coated Steel	2	20	0	0	1	1	0	0	0	1	0	1	1	11	0	3
		Plastic	0	0	11	11	38	40	0	0	2	4	0	2	4	19	3	4
		CI/WI	0	2	0	2	1	1	0	0	0	2	0	1	0	5	0	2
		Other	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
	Services	Bare Steel	461	834	1	1	9	9	0	0	0	0	1	2	6	15	1	2
		Coated Steel	4	12	0	0	1	1	0	0	0	0	1	1	6	0	1	
		Plastic	0	0	12	27	147	148	0	0	4	37	6	41	58	372	14	39
		CI/WI	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
		Other	1	1	0	0	0	0	0	0	0	0	0	0	0	0	0	
2011	Mains	Bare Steel	24	178	1	2	2	2	0	0	0	0	1	1	10	2	10	
		Coated Steel	2	13	0	0	3	3	0	0	0	1	0	2	1	14	0	6
		Plastic	0	0	1	9	36	37	0	0	2	7	0	1	1	13	2	14
		CI/WI	0	1	0	0	1	1	0	0	0	0	0	0	3	0	2	
		Other	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
	Services	Bare Steel	304	641	2	3	9	9	0	0	2	3	1	2	5	12	4	27
		Coated Steel	2	7	0	1	3	3	0	0	0	3	0	0	1	5	3	8
		Plastic	0	0	13	29	115	119	0	0	2	17	3	20	22	177	14	66
		CI/WI	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
		Other	0	0	0	0	0	0	0	0	0	0	0	0	0	1	3	

Source: WMS leak data pulled from Optimain by Julie Gerhart

**Table A-14: Leak Incidence Rates– Eliminated/Repaired Leaks**

			Corrosion		Natural Forces		Excavation Damage		Other Outside Force Damage		Material or Weld Failure		Equipment Failure		Incorrect Operations		Other	
			% HAZ <sup>1</sup>	RATE <sup>2</sup>	% HAZ	RATE	% HAZ	RATE	% HAZ	RATE	% HAZ	RATE	% HAZ	RATE	% HAZ	RATE	% HAZ	RATE
2007	Mains	Bare Steel	16%	454	75%	8	100%	10	0%	0	0%	0	0%	4	20%	40	15%	26
		Coated Steel	11%	22	0%	2	100%	5	0%	0	0%	2	0%	3	21%	17	0%	12
		Plastic	0%	0	13%	7	100%	57	0%	0	75%	4	50%	2	23%	20	13%	13
		CI/WI	25%	160	100%	80	0%	0	0%	0	33%	120	0%	0	0%	160	0%	120
		Other	100%	500	0%	0	0%	0	0%	0	0%	0	0%	0	0%	0	0%	0
	Services	Bare Steel	50%	4303	50%	10	100%	100	0%	0	0%	0	24%	9	24%	77	45%	55
		Coated Steel	50%	29	0%	0	100%	12	0%	0	0%	3	14%	3	14%	19	20%	15
		Plastic	0%	0	64%	19	99%	141	0%	0	25%	9	18%	24	18%	210	44%	33
		CI/WI	0%	0	0%	0	0%	0	0%	0	0%	0	0%	0	0%	0	0%	0
		Other	0%	n/a <sup>3</sup>	0%	0	0%	0	0%	0	0%	0	0%	0	0%	0	0%	0
2008	Mains	Bare Steel	18%	492	50%	5	100%	21	0%	0	0%	0	0%	5	15%	42	0%	17
		Coated Steel	14%	25	50%	3	100%	5	0%	0	0%	0	0%	2	11%	11	50%	10
		Plastic	0%	0	25%	4	95%	47	0%	0	50%	2	0%	3	9%	20	14%	12
		CI/WI	0%	80	0%	0	100%	40	0%	0	0%	80	0%	40	17%	480	0%	40
		Other	100%	500	0%	0	0%	0	0%	0	0%	0	0%	0	0%	0	0%	0
	Services	Bare Steel	51%	4480	0%	0	82%	58	0%	0	100%	6	20%	8	20%	71	44%	48
		Coated Steel	64%	73	100%	6	100%	9	0%	0	0%	0	0%	2	0%	16	60%	15
		Plastic	0%	0	52%	23	98%	121	0%	0	23%	10	21%	33	21%	294	28%	29
		CI/WI	100%	n/a	0%	0	0%	0	0%	0	0%	0	0%	0	0%	0	0%	0
		Other	0%	0	0%	0	0%	0	0%	0	0%	0	0%	0	0%	0	0%	0
2009	Mains	Bare Steel	12%	658	0%	0	100%	11	0%	0	0%	0	0%	7	13%	50	20%	22
		Coated Steel	25%	24	0%	0	100%	2	0%	0	0%	2	0%	3	20%	18	13%	10
		Plastic	0%	0	0%	3	100%	33	0%	0	0%	3	50%	2	27%	19	8%	10
		CI/WI	0%	250	50%	167	100%	42	0%	0	100%	83	0%	42	13%	333	0%	83
		Other	0%	0	0%	0	0%	0	0%	0	0%	0	0%	0	0%	42	0%	0
	Services	Bare Steel	59%	6225	100%	6	100%	52	0%	0	50%	12	46%	14	46%	123	36%	63
		Coated Steel	33%	17	0%	0	100%	7	0%	0	50%	7	7%	5	7%	41	60%	16
		Plastic	0%	0	55%	16	97%	100	0%	0	9%	25	18%	31	18%	271	45%	30
		CI/WI	0%	n/a	0%	0	0%	0	0%	0	0%	0	0%	0	0%	0	0%	0
		Other	0%	0	0%	0	0%	0	0%	0	0%	0	0%	0	0%	0	0%	n/a
2010	Mains	Bare Steel	15%	453	0%	0	100%	14	0%	0	0%	0	0%	3	20%	22	8%	29
		Coated Steel	10%	24	0%	0	100%	2	0%	0	0%	2	0%	2	9%	13	0%	4
		Plastic	0%	0	100%	9	95%	33	0%	0	50%	4	0%	2	21%	16	75%	4
		CI/WI	0%	83	0%	83	100%	42	0%	0	0%	84	0%	42	0%	209	0%	84
		Other	0%	0	0%	0	0%	0	0%	0	0%	0	0%	0	0%	0	0%	0
	Services	Bare Steel	55%	375	100%	1	100%	5	0%	0	0%	0	41%	1	41%	7	50%	1
		Coated Steel	33%	37	0%	0	100%	4	0%	0	0%	0	14%	3	14%	20	0%	4
		Plastic	0%	0	44%	19	99%	103	0%	0	11%	26	15%	29	15%	259	36%	28
		CI/WI	0%	0	0%	0	0%	0	0%	0	0%	0	0%	0	0%	0	0%	0
		Other	100%	n/a	0%	0	0%	0	0%	0	0%	0	0%	0	0%	0	0%	0
2011	Mains	Bare Steel	13%	392	50%	4	100%	4	0%	0%	0%	0	0%	2	10%	22	20%	22
		Coated Steel	15%	16	0%	0	100%	4	0%	0%	0%	1	0%	2	7%	17	0%	7
		Plastic	0%	0	11%	7	97%	30	0%	0%	29%	6	0%	1	8%	10	14%	11
		CI/WI	0%	48	0%	0	100%	48	0%	0%	0%	0	0%	0	0%	143	0%	95

<sup>1</sup> (Total Hazardous Leaks(Eliminated/Repaired) / Total Leaks(Eliminated/Repaired)) x 100

<sup>2</sup> (Total Leaks(Eliminated/Repaired) / total mile) x 1000

<sup>3</sup> Based on the data no denominator exists

Services	Other	0%	0	0%	0	0%	0	0%	0%	0%	0	0%	0	0%	0	0%	0
	Bare Steel	47%	3749	67%	17	100%	53	0%	0%	67%	18	50%	12	42%	70	15%	158
	Coated Steel	29%	22	0%	3	100%	10	0%	0%	0%	10	0%	0	20%	16	38%	25
	Plastic	0%	0	45%	20	97%	81	0%	0%	12%	12	15%	14	12%	120	21%	45
	CI/WI	0%	0	0%	0	0%	0	0%	0%	0%	0	0%	0	0%	0	0%	0
	Other	0%	0	0%	0	0%	0	0%	0%	0%	0	0%	0	0%	0	33%	n/a

Source: WMS leak data pulled from Optimain. Main and service length is from the annual DOT report. Data assimilated by Julie Gerhart.

## **APPENDIX B: THREAT IDENTIFICATION**

### **Contents:**

Table B-1: Threat Identification

Table B-2: Localized Threat Conditions



Table B-1: Threat Identification

ASSET GROUPS		THREATS																														
		Corrosion		Natural Forces				Excav. Damage				Other Outside Force Damage						Material or Weld Failure						Equipment Failure		Incor Ogs	Other					
		External Corrosion	Internal Corrosion	Earth Movement	Lightning	Other Storm Damage	Frost	Excavator Error	Locator Error	Poor Records	Failure to Notify	Fire / Explosion	Vehicle Damage	Damage Caused by Maritime Vessels	Electrical Arcing from Other Equipment	Previous Mech Damage	Intentional Damage	Defective Body of Pipe	Defective Pipe Seam	Threaded Joint	Defective Weld	Defective Fusion Joint	Cast Iron Bell Joint	Mechanical Fitting	Repair Device Failure	Other Material Failure	Regulating Equipment Malfunction	Valve Failure / Leakage	Other Equipment Failure	Incorrect Construction / Operation	Miscellaneous	
Steel Mains	Bare Protected	C	B	C	B	C	B					B	A	A	C	B	C	B	B	A	B	A	A	A	B	B	C	C	B	C	B	
	Bare Unprotected	C	B	C	B	C	B	C	C	C		B	A	A	C	B	C	B	B	C	B	A	A	A	B	B	C	C	B	C	B	
	Coated Protected	C	B	C	B	C	B					B	A	B	C	B	C	B	B	A	B	A	A	A	B	B	C	C	B	C	B	
	Coated Unprotected	C	B	C	B	C	B					B	A	A	C	B	C	B	B	A	B	A	A	A	B	B	C	C	B	C	B	
Steel Services	Bare Protected	C	B	C	B	C	B					B	A	A	C	B	C	B	B	C	B	A	A	A	B	B	C	C	B	B	B	
	Bare Unprotected	C	B	C	B	C	B	C	C	C		B	A	A	C	B	C	B	B	C	B	A	A	A	B	B	C	C	B	B	B	
	Coated Protected	C	B	C	B	C	B					B	A	A	C	B	C	B	B	A	B	A	A	A	B	B	C	C	B	C	B	
	Coated Unprotected	C	B	C	B	C	B					B	A	A	C	B	C	B	B	A	B	A	A	A	B	B	C	C	B	C	B	
Plastic Mains	PE - Pre-1982	A	A	C	C	C	B	C	C	C		B	A	A	C	B	C	C	A	A	A	C	A	A	B	B	C	C	B	D	B	
	PE - Post-1982	A	A	C	C	C	B					B	A	A	C	B	C	B	A	A	A	C	A	A	B	B	C	C	B	D	B	
Plastic Services	PE - Pre-1982	A	A	C	C	C	B	C	C	C		B	A	A	C	B	C	C	A	A	A	C	A	A	B	B	C	C	B	D	B	
	PE - Post-1982	A	A	C	C	C	B					B	A	A	C	B	C	D	A	A	A	C	A	A	B	B	C	C	B	D	B	
Other Pipe	Cast Iron	B	B	B	B	C	C	C	C	C		B	A	A	B	B	C	B	A	A	A	C	A	B	B	C	C	B	C	B		
	Wrought Iron	D	A	B	B	C	A	C	C	C		A	A	A	C	B	C	B	A	A	B	A	A	B	B	C	C	B	C	B		
Aboveground	Copper	C	B	B	B	C	B	B	B	B		B	A	A	B	B	B	A	A	A	A	A	A	A	B	B	B	B	B	B		
	Aboveground Mains	C	B	C	B	C	B	A	A	A		A	B	C	B	C	B	B	A	B	A	A	A	B	B	C	C	B	C	B		
Settings	Customer Meter Set	C	B	B	B	C	C	A	A	A		C	C	A	C	B	C	B	B	C	B	A	A	C	B	B	C	C	B	C	B	
	M&R Stations	C	B	B	C	C	C	A	A	A		B	C	A	C	B	C	B	B	C	B	A	A	C	A	B	C	C	B	C	B	
Steel Fittings	Mechanical Couplings	C	B	B	B	C	B	C	C	C		C	B	A	A	C	B	C	A	A	A	C	A	B	A	A	C	A	B	C	B	
	Service Tees	C	B	B	B	C	B	C	C	C		C	B	A	A	C	B	C	B	A	C	B	A	A	C	A	B	C	C	B	C	
	Service Risers	C	B	B	B	C	B	C	C	C		C	C	A	C	B	C	B	A	C	B	A	A	C	A	B	C	C	B	C	B	
	Valves	C	B	B	B	C	B	C	C	C		C	B	A	A	C	B	C	B	A	C	B	A	A	C	A	D	C	C	B	C	B
Plastic Fittings	Other	C	B	B	B	C	B	C	C	C		C	B	A	A	C	B	C	B	A	B	B	A	A	C	A	B	C	C	B	C	B
	Mechanical Couplings	A	A	B	C	C	B	C	C	C		C	B	A	A	C	B	C	B	A	A	A	A	C	A	B	C	C	B	C	B	
	Service Tees	A	A	B	C	C	B	C	C	C		C	B	A	A	C	B	C	B	A	D	A	C	A	C	A	B	C	C	B	C	B
	Service Risers	C	A	B	C	C	B	C	C	C		C	C	A	C	B	C	B	A	C	A	A	A	C	A	B	C	C	B	C	B	
Other	Valves	A	A	B	C	C	B	C	C	C		C	B	A	A	C	B	C	B	A	A	A	C	A	D	A	B	C	C	B	C	B
	Other	A	A	B	C	C	B	C	C	C		C	B	A	A	C	B	C	B	A	A	A	C	A	C	A	B	C	C	B	C	B

Codes: A = Threat is not applicable  
 B = Potential threat, but threat is perceived to be negligible or insignificant (no known occurrences within the past 5 years)  
 C = Threat is applicable and general in nature  
 D = Threat is applicable and there is a localized condition which is to be evaluated separately

**Table B-2: Localized Threat Conditions**

Threat Category	Asset Group	Description	Probability Score	Consequence Score	Total Risk Score
Material or Weld Failure - Defective Body of Pipe	Plastic Services - PE Post 1982	Potential manufacturing defect associated with certain lots of 1-inch PE pipe produced by Polypipe.	1	7	7
Material or Weld Failure - Other Material Failure	Steel Fittings - Valves	Historical facility failure reports have identified higher leak rates associated with steel valves manufactured by Kerotest. M-1 model gate valves manufactured prior to 1997 have a tendency towards leakage where stress corrosion cracking occurs on the bo	1	8	8
Material or Weld Failure - Threaded Joint	Plastic Fittings - Service Tees	Historical facility failure reports have shown that plastic tapping tees made by Plexco have a far greater leakage rate than other tapping tees. Leakage occurs when the screw cap cracks. Over-tightening of caps during installation could cause the cap to	1	4	4
Material or Weld Failure - Mechanical Fittings	Plastic Fittings - Valves	Historical facility failure reports have shown that plastic service valves leak at a greater rate than others. The Kerotite model valve made by Kerotest have a tendency to leak at the compression end nut connection. These valves were installed in the 19	5	7	35
Incorrect Construction	Plastic Mains - Pre 1982	Sewer crossbores	1	10	10
Incorrect Construction	Plastic Mains - Post 1982	Sewer crossbores	1	10	10
Incorrect Construction	Plastic Services - Post 1982	Sewer crossbores	1	10	10
Incorrect Construction	Plastic Services - Pre 1982	Sewer crossbores	1	10	10

## **APPENDIX C: RISK EVALUATION AND RANKING**

### **Contents:**

Table C-1: Risk Evaluation – Probability of Failure (POF) Factors

Table C-2: Risk Evaluation – Consequence of Failure (COF) Factors

Table C-3: Risk Evaluation – Total Risk Scores

Table C-4: Evaluation of Highest Risks

Table C-1: Risk Evaluation - Probability of Failure (POF) Factors

ASSET GROUPS		THREATS																												
		Corrosion		Natural Forces				Excav. Damage			Other Outside Force Damage				Material or Weld Failure					Equipment Failure		Incor Ops	Other							
		External Corrosion	Internal Corrosion	Earth Movement	Lightning	Other Storm Damage	Frost	Excavator Error	Locator Error	Poor Records	Failure to Notify	Fire / Explosion	Vehicle Damage	Damage Caused by Maritime Vessels	Electrical Arcing from Other Equipment	Previous Mech. Damage	Intentional Damage	Defective Body of Pipe	Defective Pipe Seam	Threaded Joint	Defective Weld	Defective Fusion Joint	Cast Iron Bell Joint	Mechanical Fitting	Repair Device Failure	Other Material Failure	Regulating Equipment Malfunction	Valve Failure / Leakage	Other Equipment Failure	Incorrect Construction / Operation
Steel Mains	Bare Protected	2		1		1								1		1										2	2		1	
	Bare Unprotected	10		1		1								1		1			1							2	2		1	
Steel Services	Coated Protected	2		1		1		3	3	1	2			1		1										2	2		1	
	Coated Unprotected	4		1		1								1		1										2	2		1	
	Bare Protected	2		1		1								1		1			1							2	2		1	
	Bare Unprotected	10		1		1		3	3	1	2			1		1			1							2	2		1	
Plastic Mains	PE - Pre-1982			1	1	1								1		1	1				1					2	2		1	
	PE - Post-1982			1	1	1		6	6	2	4			1		1					1					2	2		1	
Plastic Services	PE - Pre-1982			1	1	1								1		1	1				1					2	2		1	
	PE - Post-1982			1	1	1		8	8	4	6			1		1	1				1					2	2		1	
Other Pipe	Cast Iron					1	1	1	1	1	1			1		1						1				2	2		1	
	Wrought Iron					1		1	1	1	1			1		1							1			2	2		1	
	Copper	1				1								1		1										2	2		1	
Aboveground	Aboveground Mains	3		1		1							1		1											2	2		1	
	Customer Meter Set	3				1	1	1					1	2		1				1						2	2		1	
Settings	M&R Stations	2			1	1	1							1		1				1						2	2		1	
	Mechanical Couplings	1				1								1		1										2	2		1	
Steel Fittings	Service Tees	1				1		1	1	1	1			1		1				1						2	2		1	
	Service Risers	1				1		1	1	1	1			1		1				1						2	2		1	
	Valves	1				1		1	1	1	1			1		1				1				1		2	2		1	
	Other	1				1		1	1	1	1			1		1							1			2	2		1	
Plastic Fittings	Mechanical Couplings				1	1		1	1	1	1			1		1										2	2		1	
	Service Tees				1	1		1	1	1	1			1		1				1						2	2		3	
	Service Risers	1			1	1		1	1	1	1			1		1				1						2	2		3	
	Valves				1	1		1	1	1	1			1		1				1			5			2	2		1	
Other				1	1		1	1	1	1			1		1				1						2	2		1		

Scale: 1 to 10 (10 having highest probability)



Table C-3: Risk Evaluation - Total Risk Scores

		THREATS																												
		Corrosion		Natural Forces			Excav. Damage				Other Outside Force Damage				Material or Weld Failure				Equipment Failure		Incor Ops	Other								
		External Corrosion	Internal Corrosion	Earth Movement	Lightning	Other Storm Damage	Frost	Excavator Error	Locator Error	Poor Records	Failure to Notify	Fire / Explosion	Vehicle Damage	Damage Caused by Maritime Vessels	Electrical Arcing from Other Equipment	Previous Mesh Damage	Intentional Damage	Defective Body of Pipe	Defective Pipe Seam	Threaded Joint	Defective Weld	Defective Fusion Joint	Cast Iron Bell Joint	Mechanical Fitting	Repair / Deck Failure	Other Material Failure	Regulating Equipment Malfunction	Valve Failure / Leakage	Other Equipment Failure	Incorrect Construction / Operation
ASSET GROUPS	Steel Mains	Bare Protected	10	2	7													5	8							14	14		8	
	Bare Unprotected	50	2	7			30	30	10	20								5	8	4						14	14		8	
	Coated Protected	10	2	7														5	8							8	8		8	
	Coated Unprotected	20	2	7														5	8							8	8		8	
	Steel Services	Bare Protected	10	3	7													5	8		4					14	14			
	Bare Unprotected	50	3	7			30	30	10	20								5	8		4					14	14			
	Coated Protected	10	3	7														5	8							8	8		8	
	Coated Unprotected	20	3	7														5	8							8	8		8	
	Plastic Mains	PE - Pre-1982	2	9	7			60	60	20	40							9	9	8			8			16	16		8	
	PE - Post 1982	2	9	7														9	9				8			16	16		8	
	Plastic Services	PE - Pre-1982	3	9	7			80	80	40	60							9	9	7			8			16	16		8	
	PE - Post 1982	3	9	7														9	9	7			8			16	16		8	
	Other Pipe	Cast Iron				7	9	10	10	10	10								8				7			18	18		8	
	Wrought Iron	5						10	10	10	10							5								14	14		8	
	Copper	3																												
	Aboveground	Aboveground Mains	9	1	7								7					6		8						14	14		8	
	Settings	Customer Meter Set	6		8	3							9	18				9	16		2			7		18	18		8	
	M&R Stations	2		7	8	8							10					6	10		2			3		20	20		8	
	Steel Fittings	Mechanical Couplings	5			7			10	10	10	10						5	8					7		18	18		8	
	Service Tees	5				7			10	10	10	10						5	8		4			4		18	18		8	
	Service Risers	6				7			10	10	10	10		9	9			5	8		2			9		18	18		8	
	Valves	5				7			10	10	10	10						5	8		3			4	8	18	18		8	
	Other	5				7			10	10	10	10						5	8					4		18	18		8	
	Plastic Fittings	Mechanical Couplings				9	7		10	10	10	10						9	9					4			18	18		8
Service Tees	9				7			10	10	10	10						9	9		4		8		4		18	18		24	
Service Risers	3				10	7		10	10	10	10		9	9			9	9		2			9		18	18		24		
Valves	9				7			10	10	10	10						9	9				8		35		18	18		8	
Other	9				7			10	10	10	10						9	9				8		4		18	18		8	

**Table C-4: Evaluation of Highest Risks**

Top 10 Highest Total Risks					
Ranking	Threat	Asset Group	Remarks	Related A/A Actions (Refer to Table D-2)	Performance Measure(s) (Refer to Table E-1)
1	Excavator Error	Plastic Services		AA002, AA003, AA005, AA006, AA007, AA009, AA010, AA011, AA014, AA015	PM029, PM031, PM034, PM035, PM036
1	Locator Error	Plastic Services		AA001, AA002, AA003, AA006, AA007, AA010, AA012, AA014, AA015	PM029, PM030, PM031, PM033, PM035, PM036
3	Excavator Error	Plastic Mains		AA002, AA003, AA005, AA006, AA007, AA009, AA010, AA011, AA014, AA015	PM029, PM031, PM034, PM035, PM036
3	Locator Error	Plastic Mains		AA001, AA002, AA003, AA006, AA007, AA010, AA012, AA014, AA015	PM029, PM030, PM031, PM033, PM035, PM036
3	Failure to Notify	Plastic Services		AA002, AA003, AA005, AA006, AA007, AA008, AA009, AA010, AA011, AA014	PM029, PM031, PM032, PM034, PM035, PM036
6	External Corrosion	Bare Unprotected Mains		AA002, AA003, AA004	PM023, PM026, PM035, PM036
6	External Corrosion	Bare Unprotected Services		AA002, AA003, AA004	PM024, PM027, PM035, PM036
8	Poor Records	Plastic Services		AA001, AA002, AA003, AA006, AA007, AA013	PM029, PM030, PM033, PM035, PM036
8	Failure to Notify	Plastic Mains		AA002, AA003, AA005, AA006, AA007, AA008, AA009, AA010, AA011, AA014	PM029, PM031, PM032, PM034, PM035, PM036
10	Mechanical Fitting	Plastic Valve (Localized Condition)	Failure trends are tracked via the Facility Failure Reporting system.	AA002, AA003	PM035, PM036

Ranking	Threat	Asset Group	Remarks	Related A/A Actions (Refer to Table D-2)	Performance Measure(s) (Refer to Table E-1)
n/a	Incorrect Construction	Plastic Mains - Post 1982	Sewer crossbores	AA016, AA017	PM037, PM038
n/a	Incorrect Construction	Plastic Services - Post '82	Sewer crossbores	AA016, AA017	PM037, PM038
n/a	Incorrect Construction	Plastic Services - Pre '82	Sewer crossbores	AA016, AA017	PM037, PM038
n/a	Natural Forces - Frost	Cast Iron		AA004	PM027, PM028

\*Note: These risks were identified during the risk assessment validation effort as not making the top threats by total risk score but worthy of addition to the company's list of top threats as a result of significant consequence factor

## **APPENDIX D: IMPLEMENTATION OF MEASURES TO ADDRESS RISK**

**Contents:**

Table D-1: Programs Implemented to Address Risk

Table D-2: Summary of Additional or Accelerated (A/A) Actions



**Table D-1: Programs Implemented to Address Risk**

Programs From Section 8.2	Specific Programs	Impact to Risk P=Reduces Probability C=Reduces Consequences							Department Responsible	Gas Standard References
		Corrosion	Natural Forces	Excavation Damage	Other Outside Force Damage	Material, Weld, or Joint Failure	Equipment	Incorrect Operations		
Leak Management Program	Leak Management Program	C	C	C	C	C	C	C	System Operations	Refer to Plan Section 8.1
Replacement Programs	Pipe Replacement Program	P	P			P			Engineering & Planning	n/a
Damage Prevention Program	Damage Prevention Program			PC					Pipeline Safety & Compliance	Damage Prevention Plan
Public Awareness Program	Public Awareness Program	C	C	PC	C	C	C	C	Communications	Public Awareness Plan
Programs to Address Human Factors	Operator Qualification Program							P	Pipeline Safety & Compliance	Operator Qualification Plan
	Control Room Management						PC	PC	Gas Control	CRM Plan
	Drug & Alcohol Plans							P	Pipeline Safety & Compliance	Drug & Alcohol Plan
	Construction Inspection					P		P	Construction Services	n/a
	O&M Manual / Gas Standards	PC	PC	PC	PC	PC	PC	PC	Pipeline Safety & Compliance	n/a
Internal Auditing	Internal Operations Audit							P	Pipeline Safety & Compliance	n/a
	Service QA Program							P	Pipeline Safety & Compliance	n/a
	Leakage QA/QC							P	Pipeline Safety & Compliance	n/a
Facility Inspections and Monitoring	CP System Inspections	P							System Operations	GS 1430.020
	Atmospheric Corrosion Monitoring	P							System Operations	GS 1450.010
	Active Corrosion Monitoring	P							System Operations	GS 1430.030
	Patrolling		P		P				System Operations	GS 1702.010
	Regulator Station Inspections						PC		System Operations	GS 1750.010
	Regulator Station Capacity Review						PC		System Operations	GS 1752.010
	Critical Valve Inspections	C	C	C	C	C	C	C	System Operations	GS 1760.010
Material Management	Material Management / Standards					P			Pipeline Safety & Compliance	n/a
	Material Failure Reporting Program					P			Pipeline Safety & Compliance	GS 1652.010
Failure Mitigation Programs	Odorant Monitoring	C	C	C	C	C	C	C	System Operations	GS 1670.020
	SCADA						C		Gas Control	n/a
	Excess Flow Valves			C					Engineering & Planning	GS 3020.100
	Emergency Planning	C	C	C	C	C	C	C	Field Operations	Emergency Manual
	Relief Valve Capacity Review						C		Engineering & Planning	GS 1750.040

Table D-2: Summary of Additional or Accelerated (A/A) Actions

Reference Number	A/A Action	Implementation Schedule	Threat(s) and Risk Factor(s) Targeted	Remarks	Performance Measure
AA001	Installation of electronic markers at areas difficult to locate and at other strategic locations.	GS 3010.51 was effective March 2010.	Excavation Damage - Locator Error and Excavation Damage - Poor Records (Probability)		1. Damages per thousand locates due to Locator Error 2. Damages per thousand due to Poor Records
AA002	Established team to identify ways to improve emergency response times.	Team began in 2010 and work continues	All threat categories (Consequence)		% of priorities responded to in 1 hour or less.
AA003	Follow-up leakage surveys	Implemented many years ago	All threat categories (Consequence)		% of follow-up surveys identifying leakage
AA004	Accelerated pipe replacement program		External Corrosion, Natural Forces - Frost, and Cast Iron Bell Joint (Probability)		1. # of corrosion leaks on bare steel mains 2. # of corrosion leaks on bare steel services 3. # of leaks on cast iron
AA005	Enhanced public education efforts, including meeting with excavators and educating One Call Centers	Implementation Completed pre-DIMP. Effort ongoing.	Excavator Error - Failure to notify (probability and consequence)	The need for such communications was determined as part of implementation of the Company's Public Awareness Program.	Number of meetings
AA006	Establishment of state DP Steering Committee	Committee established in Spring 2011	Excavator Error - Failure to notify, locator error, and poor records (probability and consequence)		Number of damages per thousand locates
AA007	Establishment of local DP plan for each Operating Center	Implemented January 2011	Excavator Error - Failure to notify, locator error, and poor records (probability and consequence)		Number of damages per thousand locates, for each Operating Center
AA008	Placing "call before you dig" (811) stickers on company vehicles	Implemented First quarter 2011	Excavation damage - failure to notify (probability)		Number of damages per thousand locates due to failure to notify
AA009	Tracking of damaging excavator for the purpose of educating them concerning safe excavation practice around natural gas facilities	Implemented 2010	Excavation damage - failure to notify and excavator error (probability)		Number of damages per thousand locates due to excavator error
AA010	Increased localized staffing to support DP coordination efforts (Damage Prevention Coordinator)	Hiring began spring 2011 and will continue on a as needed basis	Excavation damage - failure to notify, excavator error, locator error, and poor records (probability)		Number of damages per thousand locates, for each Operating Center
AA011	Actively participate in state DP councils sponsored by the state One Call Center	Implemented Pre-DIMP	Excavation damage - excavator error, failure to notify, and locator error (probability)		Number of damages per thousand locates, for each Operating Center
AA012	QA/QC of line locating activities	Implemented 2010	Excavation damage - locator error (probability)		Number of Damages per thousand locates due to locator error
AA013	Increased efforts in mapping standards ( i.e., "swing ties")	Field data collection began May 2011 for capturing swing ties. On-Base On-Line implemented spring 2011.	Excavation damage - poor records (probability)	Increased efforts in mapping standards ("swing ties"). Implementation of technology to allow locators access to service line records. Enhanced mapping features in GIS.	Number of Damages per thousand locates due to poor records
AA014	Active participation on State One Call Center board	Implementation Completed pre-DIMP. Effort ongoing	Excavation damage - excavator error, failure to notify, and locator error (probability)		Number of damages per thousand locates
AA015	Monitoring of excavations around high consequence facilities (high pressure lines)	Implementation completed pre-DIMP	Excavation Damage - excavator error (Probability)		Number of damages per thousand locates due to excavator error
AA016	Develop and implement protocol for evaluating appropriate surrounding facilities when a sewer crossbore is identified.	Protocol implemented by 12/31/2013	Incorrect construction (Probability)		1. Number of damages caused by sewer cleanout 2. Number of instances when company notified of crossbores (no leakage)
AA017	Implementation of Gas Standard 1100.050 to reduce the risk associated with sewer crossbores during new construction.	GS in effect on 07/01/2011	Incorrect construction (Probability)		1. Number of damages caused by sewer cleanout 2. Number of instances when company notified of crossbores (no leakage)

**APPENDIX E:  
MEASUREMENT OF PERFORMANCE, MONITORING OF RESULTS, AND  
EVALUATING EFFECTIVENESS**

**Contents:**

Table E-1: Performance Measures

Table E-2: Performance Measure Collection Process

Table E-1: Performance Measures

Reference Number	Performance Measure	2006	2007	2008	2009	2010	2011	AVG <sub>base</sub> = Previous 5 yr Average	% Diff: Current Yr vs. AVG <sub>base</sub>
PM001	Number of hazardous leaks eliminated/repaired, due to Corrosion	420	479	496	701	500	332	519	-36%
PM002	Number of hazardous leaks eliminated/repaired, due to Natural Forces	27	23	21	15	28	17	23	-26%
PM003	Number of hazardous leaks eliminated/repaired, due to Exc Damage	271	289	245	195	203	169	241	-30%
PM004	Number of hazardous leaks eliminated/repaired, due to Outside Forces	0	0	0	0	0	0	0	0%
PM005	Number of hazardous leaks eliminated/repaired, due to Material or Welds	9	7	5	7	6	6	7	-14%
PM006	Number of hazardous leaks eliminated/repaired, due to Equipment Failure	4	7	10	10	7	4	8	-50%
PM007	Number of hazardous leaks eliminated/repaired, due to Incorrect Ops	44	68	97	93	72	31	75	-59%
PM008	Number of hazardous leaks eliminated/repaired, due to Other	26	30	24	30	19	26	26	0%
PM009	Number of excavation damages	-	-	-	-	238	162	n/a	n/a
PM010	Number of excavation tickets	-	-	-	-	33296	36133	n/a	n/a
PM011	Number of leaks eliminated/repaired, due to Corrosion	1060	1125	1140	1482	1076	840	1176.6	-29%
PM012	Number of leaks eliminated/repaired, due to Natural Forces	40	42	41	30	41	44	38.8	13%
PM013	Number of leaks eliminated/repaired, due to Excavation Damage	277	291	253	198	206	174	245	-29%
PM014	Number of leaks eliminated/repaired, due to Other Outside Force Damage	0	0	0	0	0	0	0	0%
PM015	Number of leaks eliminated/repaired, due to Material or Welds	31	21	18	45	44	31	32	-3%
PM016	Number of leaks eliminated/repaired, due to Equipment Failure	21	41	56	55	49	26	44	-41%
PM017	Number of leaks eliminated/repaired, due to Incorrect Operations	188	370	495	489	438	234	396	-41%
PM018	Number of leaks eliminated/repaired, due to Other	109	102	85	91	64	136	90	51%
PM019	Number of hazardous leaks eliminated/repaired, Bare Steel	445	514	506	713	524	357	540	-34%
PM020	Number of hazardous leaks eliminated/repaired, Coated Steel	18	20	37	36	16	15	25	-40%
PM021	Number of hazardous leaks eliminated/repaired, Plastic	329	364	350	295	299	211	327	-35%
PM022	Number of hazardous leaks eliminated/repaired, Cast Iron / Wrought Iron	9	4	4	6	1	1	5	-80%
PM023	Number of corrosion leaks on bare steel mains	302	227	236	303	207	178	255	-30%

**Table E-1: Performance Measures**

Reference Number	Performance Measure	2006	2007	2008	2009	2010	2011	AVG <sub>base</sub> = Previous 5 yr Average	% Diff: Current Yr vs. AVG <sub>base</sub>
PM024	Number of corrosion leaks on bare steel services	725	864	854	1094	834	641	874	-27%
PM025	Miles of bare steel mains	498	493	473	454	450	454	473.6	-4%
PM026	Miles of bare steel services	209	201	191	176	172	173	189.8	-9%
PM027	Number of leaks on cast iron	18	16	20	26	15	7	19	-63%
PM028	Miles of cast iron pipe	25	25	25	24	24	20	24.6	-19%
PM029	Damages per thousand locates	8.35	9.08	8.56	6.52	7.15	4.41	7.93	-44%
PM030	Damages per thousand locates, due to poor records	1.17	1.18	1.03	0.65	0.72	0.66	0.95	-31%
PM031	Damages per thousand locates, due to excavator error	2.17	2.82	3.17	1.83	2.65	1.54	2.53	-39%
PM032	Damages per thousand locates, due to failure to notify	3.17	2.82	2.83	2.22	2.00	1.46	2.61	-44%
PM033	Damages per thousand locates, due to locator error	2.59	2.36	1.54	1.76	1.57	0.35	1.96	-82%
PM034	# of public awareness meetings	-	-	-	-	60	52	n/a	n/a
PM035	% of positive follow-up leakage surveys	3.1	2.9	3.1	2.2	2.1	5.7	2.7	111%
PM036	% of priorities responded to in 1 hour or less	-	93.54	94.13	96.19	97.30	97.71	n/a	n/a
PM037	Number of damages caused by sewer cleanout	-	-	-	-	-	-	n/a	n/a
PM038	Number of known crossbores (no leakage)	-	-	-	-	-	-	n/a	n/a

**Table E-2: Performance Measure Collection Process**

Reference Number	Threats Targeted	Performance Measure	Data Source Used	Data Collection Performed By
PM001	Corrosion	Number of hazardous leaks eliminated/repaired, due to Corrosion	Table A-13	Integrity Management Engineer
PM002	Natural Forces	Number of hazardous leaks eliminated/repaired, due to Natural Forces	Table A-13	Integrity Management Engineer
PM003	Excavation Damage	Number of hazardous leaks eliminated/repaired, due to Excavation Damage	Table A-13	Integrity Management Engineer
PM004	Other Outside Force Damage	Number of hazardous leaks eliminated/repaired, due to Other Outside Force Damage	Table A-13	Integrity Management Engineer
PM005	Material or Welds	Number of hazardous leaks eliminated/repaired, due to Material or Welds	Table A-13	Integrity Management Engineer
PM006	Equipment Failure	Number of hazardous leaks eliminated/repaired, due to Equipment Failure	Table A-13	Integrity Management Engineer
PM007	Incorrect Operations	Number of hazardous leaks eliminated/repaired, due to Incorrect Operations	Table A-13	Integrity Management Engineer
PM008	Other	Number of hazardous leaks eliminated/repaired, due to Other	Table A-13	Integrity Management Engineer
PM009	Excavation Damage	Number of excavation damages	WLB 4195	Damage Prevention Manager
PM010	Excavation Damage	Number of excavation tickets	Info from one call center	Damage Prevention Manager
PM011	Corrosion	Number of leaks eliminated/repaired, due to Corrosion	Table A-13	Integrity Management Engineer
PM012	Natural Forces	Number of leaks eliminated/repaired, due to Natural Forces	Table A-13	Integrity Management Engineer
PM013	Excavation Damage	Number of leaks eliminated/repaired, due to Excavation Damage	Table A-13	Integrity Management Engineer
PM014	Other Outside Force Damage	Number of leaks eliminated/repaired, due to Other Outside Force Damage	Table A-13	Integrity Management Engineer
PM015	Material or Welds	Number of leaks eliminated/repaired, due to Material or Welds	Table A-13	Integrity Management Engineer
PM016	Equipment Failure	Number of leaks eliminated/repaired, due to Equipment Failure	Table A-13	Integrity Management Engineer
PM017	Incorrect Operations	Number of leaks eliminated/repaired, due to Incorrect Operations	Table A-13	Integrity Management Engineer
PM018	Other	Number of leaks eliminated/repaired, due to Other	Table A-13	Integrity Management Engineer
PM019	All threats	Number of hazardous leaks eliminated/repaired, Bare Steel	Table A-13	Integrity Management Engineer
PM020	All threats	Number of hazardous leaks eliminated/repaired, Coated Steel	Table A-13	Integrity Management Engineer
PM021	All threats	Number of hazardous leaks eliminated/repaired, Plastic	Table A-13	Integrity Management Engineer
PM022	All threats	Number of hazardous leaks eliminated/repaired, Cast Iron / Wrought Iron	Table A-13	Integrity Management Engineer
PM023	External Corrosion	Number of corrosion leaks on bare steel mains	Table A-13	Integrity Management Engineer
PM024	External Corrosion	Number of corrosion leaks on bare steel services	Table A-13	Integrity Management Engineer
PM025	External Corrosion	Miles of bare steel mains	DOT Report	Integrity Management Engineer

**Table E-2: Performance Measure Collection Process**

Reference Number	Threats Targeted	Performance Measure	Data Source Used	Data Collection Performed By
PM026	External Corrosion	Miles of bare steel services	DOT Report	Integrity Management Engineer
PM027	Natural Force (Frost) Material – Bell Joint	Number of leaks on cast iron	Table A-13	Integrity Management Engineer
PM028	Natural Force (Frost) Material – Bell Joint	Miles of cast iron pipe	Inventory Report from Asset Accounting	Integrity Management Engineer
PM029	Excavation Damage	Damages per thousand locates	Damages from WMS, Locates from one call	Damage Prevention Manager
PM030	Excavation Damage	Damages per thousand locates, due to poor records	Damages from WMS, Locates from one call	Damage Prevention Manager
PM031	Excavation Damage	Damages per thousand locates, due to excavator error	Damages from WMS, Locates from one call	Damage Prevention Manager
PM032	Excavation Damage	Damages per thousand locates, due to failure to notify	Damages from WMS, Locates from one call	Damage Prevention Manager
PM033	Excavation Damage	Damages per thousand locates, due to locator error	Damages from WMS, Locates from one call	Damage Prevention Manager
PM034	Excavation Damage	# of public awareness meetings	API 1162 database	Compliance Manager
PM 035	All Threats	% of positive follow-up leakage surveys	WLB 4110	Integrity Management Engineer
PM036	All threats	% of priorities responded to in 1 hour or less	DIS	Compliance Manager
PM037	Incorrect Construction	Number of damages caused by sewer cleanout	WLB 4195	Integrity Management Engineer
PM038	Incorrect Construction	Number of known crossbores (no leakage)	Process to be developed	Compliance Manager

## **APPENDIX F: ADMINISTRATIVE ITEMS**

### **Contents:**

Table F-1: Company Personnel and DIMP Roles

Table F-2: Plan Revision Log



**Table F-1: Company Personnel and DIMP Roles**

<b>DIMP Steering Team</b>	
<b>Name</b>	<b>Title</b>
Rick Wilbert	Leader Field Engineering
Meggan Birmingham	Integrity Management Engineer
Scott Baker	Leader Capital Allocation & Asset Management
Rob Smith	Operations Compliance Manager
Tim McKune	Operations Compliance Manager
Rich Losey	Front Line Leader, Corrosion & Leakage
Mark Bauer	Front Line Leader, Construction Services
Mark McCullough	Front Line Leader, Construction Services
Richard Williams	Front Line Leader, Corrosion & Leakage
Scott Tustin	Compliance Specialist
Zane Salyers	Leader, M&R
Jason Copsey	External Affairs Specialist
<b>DIMP SMR Team</b>	
<b>Name</b>	<b>Title</b>
Dana Argo	Manager System Operations
Rick Burke	Operations Compliance Manager
David Cicoria	Manager System Operations
Ed Collins	Standards Engineer
Gerry Gillmeister	Leader Field Engineering
Jerry Miller	Leader Front Line Corrosion
Brian Powell	Integrity Management Engineer
Scott Baker	Leader Capital Allocation & Asset Management
Don Smith	Technical Support Specialist
Rick Burke	Leader Field Engineering
Andrew Watson	Leader Field Engineering
<b>DIMP Coordinator</b>	
<b>Name</b>	<b>Title</b>
Rob Smith	Operations Compliance Manager
<b>Executive</b>	
<b>Name</b>	<b>Title</b>
Dan Cote	Vice President, Pipeline Safety & Compliance
Steve Sylvester	General Manager of Operations
<b>Program Administration</b>	
<b>Name</b>	<b>Title</b>
Jim Roberts	Manager, Distribution Integrity Management Program
Meggan Birmingham	Integrity Management Engineer

**Table F-2: Plan Revision Log**

Effective Date	Description of Revision
08/02/2011	Original document
01/01/2012	Revised Sections 2.2, 5.4, 5.5, and 10.1; Added new Section 8.2.8.5. Revised Figures 5-1 and 10-1. Relocated Plan Revision Log to last page of plan. Editorial changes throughout to account for job title and department changes.
01/25/2013	Mechanical fitting definition added to Section 3. Editorial changes made to Sections 5.3 to better reflect intent. Footnote added to Section 6.2, referencing PHMSA Advisory Bulletin. Updated job titles and department names. Removed table A-16. New Table A-1 (Part 2). Annual revisions of appendix tables (A-1, A-2, A-3, A-8, A-9, A-10, A-11, A-12, A-13, A-14, B-1, B-2, C-1, C-2, C-3, C-4, D-1, D-2, E-1, E-2, F-1).

Columbia Gas of Kentucky, Inc.  
Distribution Integrity Management Program O&M Expenses

Initiative	2013	2014	2015	2016	2017
Damage Prevention Coordinator	47,955	73,010	75,200	77,456	79,780
GIS Mapping Technician	4,046	48,845	50,310	51,820	53,374
Compliance Specialist	4,667	56,984	58,694	60,454	62,268
Employee Benefits	8,219	29,580	29,580	29,580	29,580
Employee Expenses	6,905	12,892	12,892	12,892	12,892
Vehicle Costs	6,620	17,542	17,542	17,542	17,542
Regulator Station and Right-of-Way Clearing	20,417	245,000	245,000	245,000	245,000
Public Awareness Advertising	150,000	150,000	150,000	150,000	150,000
Total	<u>248,829</u>	<u>633,853</u>	<u>639,218</u>	<u>644,744</u>	<u>650,436</u>

**COLUMBIA GAS OF KENTUCKY, INC.  
RESPONSE TO ATTORNEY GENERAL'S FIRST  
REQUEST FOR INFORMATION  
DATED JULY 19, 2013**

65. Reference page 11 of Mr. Katko's testimony. Provide a detailed listing and quantification of all "corporate assumptions provided to Columbia" as noted on line 2.

**Response:**

Please see the table below for the corporate assumptions provided to Columbia including the financial plan in which the assumptions were last updated.

**Columbia Gas of Kentucky, Inc.**  
**2013-2014 Corporate Assumptions**

<b>Plan</b>	<b>Assumption</b>	<b>2013</b>	<b>2014</b>
2013 2+10	Annual Incentive Accrual	\$528,831	N/A
2013 0+12	Annual Incentive Accrual	N/A	\$546,900
2013 2+10	LTIP	\$74,900	\$68,500
2013 2+10	Pension Expense	\$2,157,000	\$1,179,000
2013 2+10	OPEB Expense	\$44,000	\$33,000
2013 2+10	Capital Expenditures	\$24,625,000	\$27,062,000
2013 0+12	Management Fee	\$14,717,000	\$15,056,900
2013 0+12	Active Medical	\$983,000	\$1,091,000
2013 0+12	Audit Fees	\$150,500	\$156,700
2013 0+12	Telecommunications	\$313,900	\$317,100
2013 0+12	Corporate Insurance Premiums	\$828,700	\$841,800
2013 0+12	Fleet	\$592,800	\$516,400
2012 7+5	Benefits Administration	\$89,400	\$92,400
2012 7+5	NiFit O&M	\$79,200	\$211,700
2012 7+5	Non-Exempt Merit Increase	2.50%	3.00%
2012 7+5	Exempt Merit Increase	3.00%	3.00%

KY PSC Case No. 2013-00167  
Response to AG's Data Request Set One No. 066  
Respondent: Susanne M. Taylor

**COLUMBIA GAS OF KENTUCKY, INC.  
RESPONSE TO ATTORNEY GENERAL'S FIRST  
REQUEST FOR INFORMATION  
DATED JULY 19, 2013**

66. Reference Mrs. Taylor's testimony in general. Please provide a chart depicting the corporate structure of NiSource and all of its affiliates, whether regulate or unregulated.

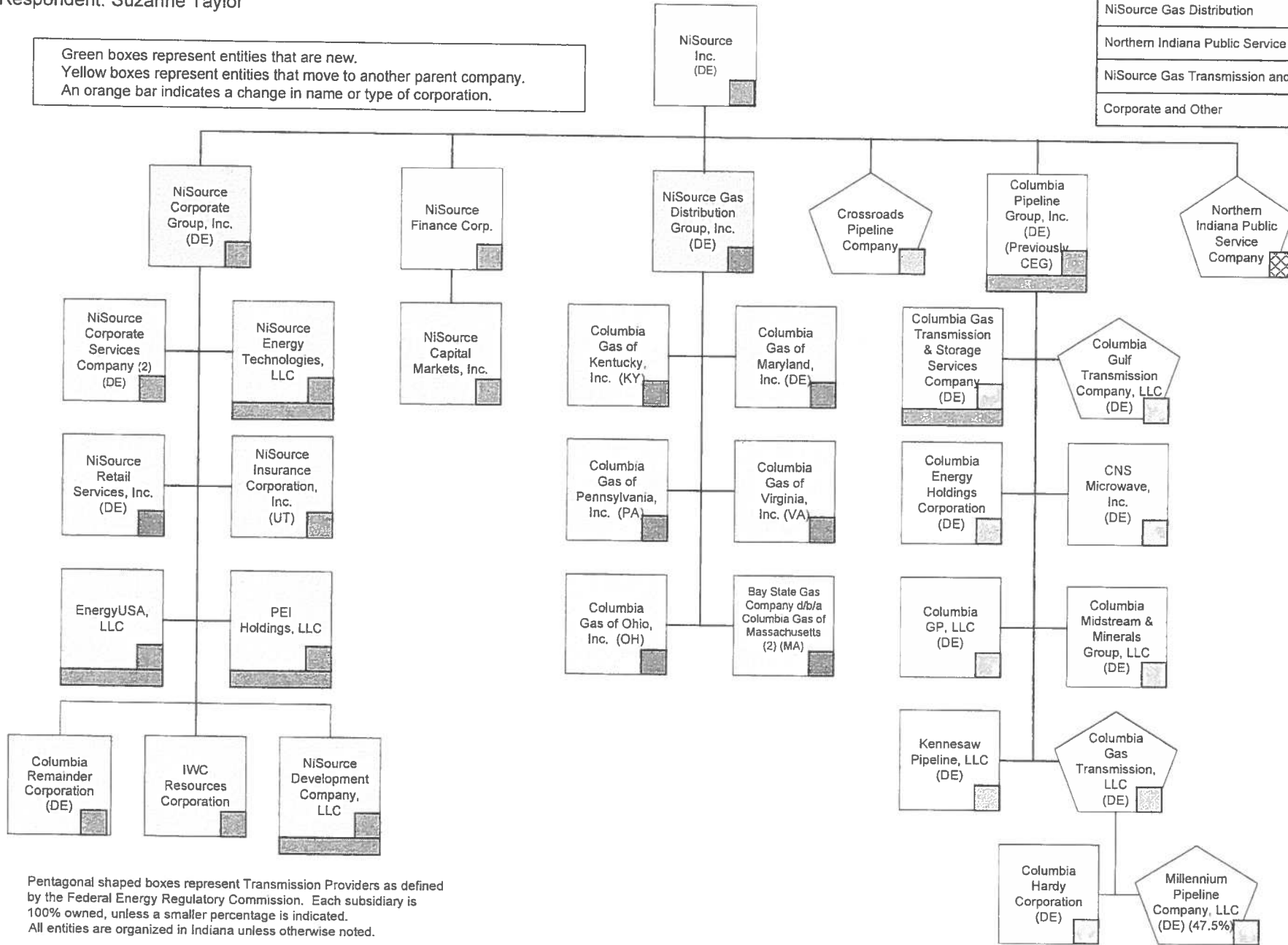
**Response:**

Please see Attachment A for the corporate structure chart depicting the NiSource corporate structure.

# NiSource Inc. Corporate Structure (Reorganization Snapshot)

Current Accounting Areas	
NiSource Gas Distribution	
Northern Indiana Public Service Company	
NiSource Gas Transmission and Storage	
Corporate and Other	

Green boxes represent entities that are new.  
 Yellow boxes represent entities that move to another parent company.  
 An orange bar indicates a change in name or type of corporation.



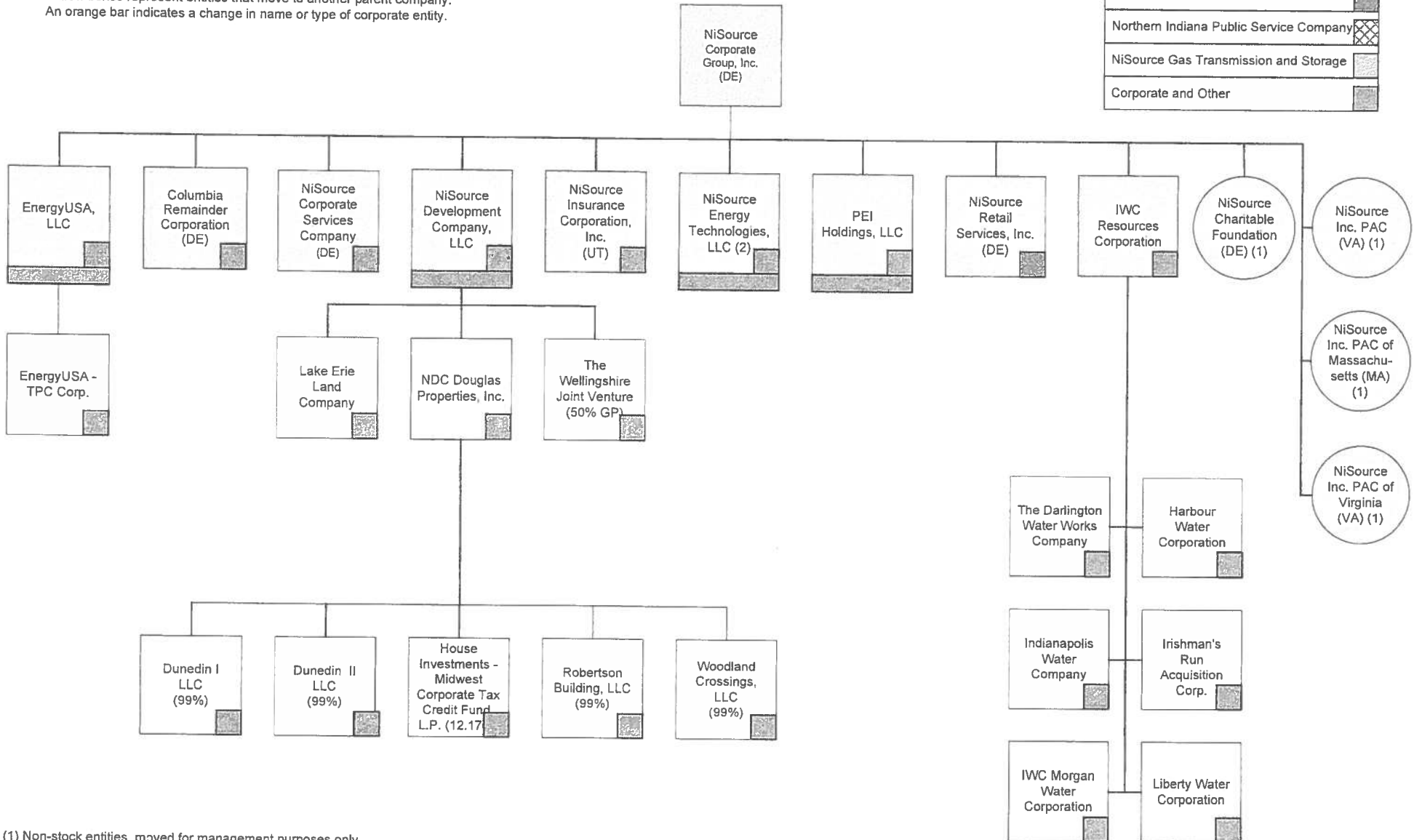
Pentagonal shaped boxes represent Transmission Providers as defined by the Federal Energy Regulatory Commission. Each subsidiary is 100% owned, unless a smaller percentage is indicated. All entities are organized in Indiana unless otherwise noted.

## NiSource Inc. Corporate Structure NiSource Corporate Group (Reorganization Analysis)

January 8, 2013

Green boxes represent entities that are new.  
Yellow boxes represent entities that move to another parent company.  
An orange bar indicates a change in name or type of corporate entity.

Current Accounting Areas	
NiSource Gas Distribution	
Northern Indiana Public Service Company	
NiSource Gas Transmission and Storage	
Corporate and Other	



(1) Non-stock entities, moved for management purposes only  
2) See investments on page 6



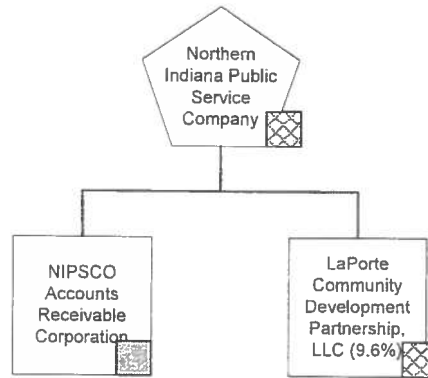
## NiSource Inc. Corporate Structure Northern Indiana Public Service Company (Reorganization Analysis)

January 8, 2013

Green boxes represent entities that are new.  
 Yellow boxes represent entities that move to another parent company.  
 An orange bar indicates that the name changes.

Pentagonal shaped boxes represent Transmission Providers as defined by the Federal Energy Regulatory Commission. Each subsidiary is 100% owned, unless a smaller percentage is indicated.  
 All entities are organized in Indiana unless otherwise noted.

Current Accounting Areas	
NiSource Gas Distribution	
Northern Indiana Public Service Company	
NiSource Gas Transmission and Storage	
Corporate and Other	



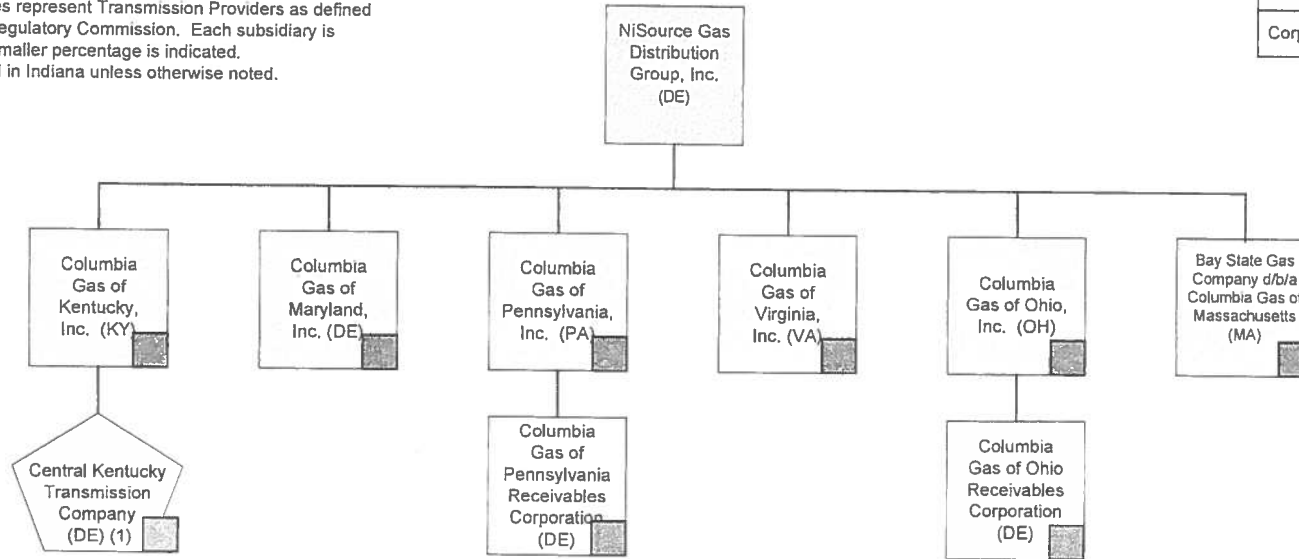
## NiSource Inc. Corporate Structure NiSource Gas Distribution Group (Reorganization Analysis)

January 8, 2013

Green boxes represent entities that are new.  
 Yellow boxes represent entities that move to another parent company.  
 Red boxes represent entities that should be considered for elimination.  
 An orange bar indicates that the name changes.

Pentagonal shaped boxes represent Transmission Providers as defined by the Federal Energy Regulatory Commission. Each subsidiary is 100% owned, unless a smaller percentage is indicated.  
 All entities are organized in Indiana unless otherwise noted.

Current Accounting Areas	
NiSource Gas Distribution	■
Northern Indiana Public Service Company	■
NiSource Gas Transmission and Storage	■
Corporate and Other	■



(1) Central Kentucky Transmission Company is managed and operated as part of NiSource Gas Transmission & Storage Group

## NiSource Inc. Corporate Structure NiSource Gas Transmission & Storage (NGT&S) Group (Reorganization Analysis)

January 8, 2013

Green boxes represent entities that are new.

Yellow boxes represent entities that move to another parent company.

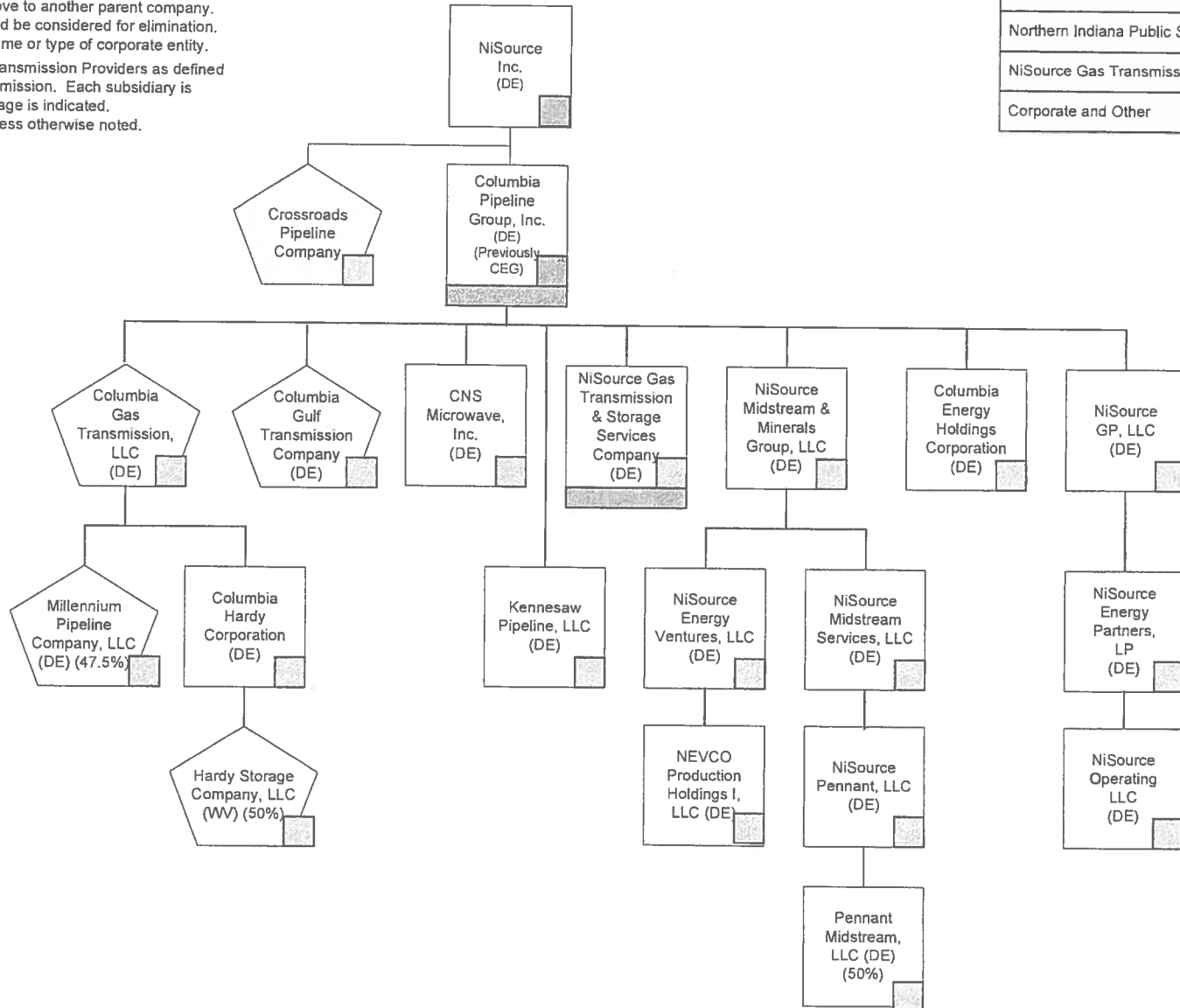
Red boxes represent entities that should be considered for elimination.

An orange bar indicates a change in name or type of corporate entity.

Pentagonal shaped boxes represent Transmission Providers as defined by the Federal Energy Regulatory Commission. Each subsidiary is 100% owned, unless a smaller percentage is indicated.

All entities are organized in Indiana unless otherwise noted.

Current Accounting Areas	
NiSource Gas Distribution	
Northern Indiana Public Service Company	
NiSource Gas Transmission and Storage	
Corporate and Other	

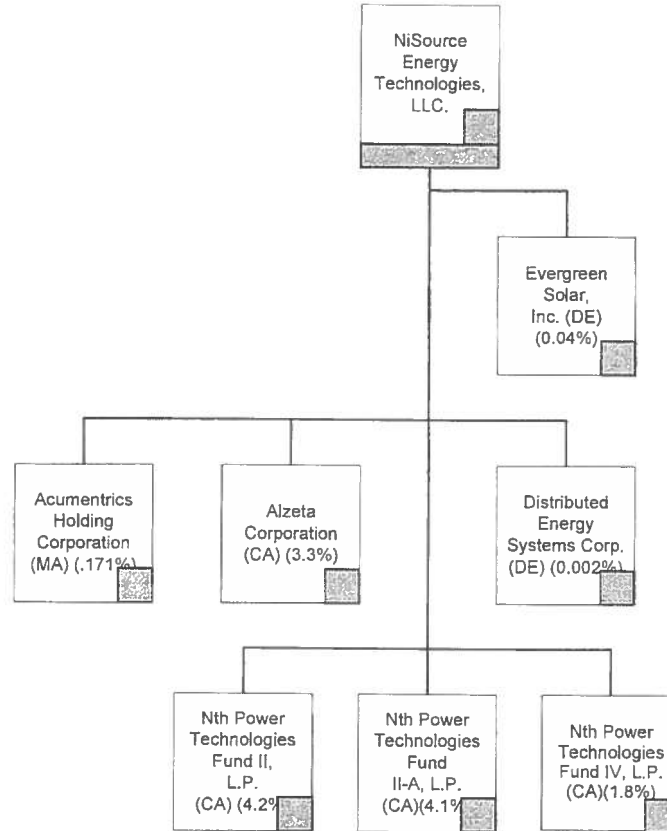


## NiSource Inc. Corporate Structure NiSource Corporate Group NiSource Energy Technologies, LLC. Investments (Reorganization Analysis)

January 8, 2013

Green boxes represent entities that are new.  
 Yellow boxes represent entities that move to another parent company.  
 An orange bar indicates a change in name or type of corporate entity.

Current Accounting Areas	
NiSource Gas Distribution	
Northern Indiana Public Service Company	
NiSource Gas Transmission and Storage	
Corporate and Other	



**COLUMBIA GAS OF KENTUCKY, INC.  
RESPONSE TO ATTORNEY GENERAL'S FIRST  
REQUEST FOR INFORMATION  
DATED JULY 19, 2013**

67. Reference page 9 of Mrs. Taylor's testimony regarding the "meetings and discussions to build consensus on how the job order will be allocated to NiSource affiliates."
- a. Provide the names, positions, titles, and company affiliation of each person who participates in the meetings and discussions.
  - b. Is any Columbia representative allowed to provide any guidance in the decision making process? If not, why not. If yes, explain in detail how and what is presented.
  - c. Does any Columbia representative vote or otherwise participate in the ultimate decision making process? If not, why not. If yes, explain in detail how.

**Response:**

- a. In order to create a new job order, a department sponsor or project manager must submit a job order request form to NCSC Accounting. The job order request form includes numerous questions that the submitter must answer about the

proposed job order including: if the costs are capital in nature, and which NiSource affiliates or groups of affiliates will be benefitting from the services being rendered. Please refer to the attachment hereto for examples of job order request forms for job orders that have been created during 2012 and impact Columbia, and the information obtained from department representatives or project manager. NCSC Accounting confers directly with the department sponsor or project manager if there are additional questions regarding benefitting affiliates, etc., and then an approval from NCSC Accounting Manager is required. Each job order can be set up with only one basis of allocation, and in many cases, only one specific allocation code or direct company billing is set up for a particular job order, depending on what affiliate(s) benefit from the services. Also in the attachment are the names, positions, and company affiliation of each person involved in creating or modifying the specific job order.

b. Yes, if impacted by modifications or new job orders, Columbia representatives are allowed to provide guidance in the decision making process for new job orders. Please see the response to part "a" for explanation of the job order creation process.

c. Yes, if impacted by modifications or new job orders, Columbia representatives participate in the decision making process for new job orders. Please see the response to part "a" for explanation of the job order creation process.

## Job Order Request Form

### Example 1

Involved in Job Order Initiation, Creation, and Approval:

<u>Name</u>	<u>Title</u>	<u>Company Affiliation</u>
Brad Vangen	Manager, NCSC Accounting	NiSource Corporate Services Company
Jason Carnicelli	Financial Analyst, NCSC Accounting	NiSource Corporate Services Company
Benjamin Freiman	Senior Analyst, NCSC Accounting	NiSource Corporate Services Company
Jennifer Carr	Lead Financial Support Analyst, IT	NiSource Corporate Services Company
Jason Pfeiffer	Lead Analyst, NCSC Accounting	NiSource Corporate Services Company
Michael Coffman	Lead Financial Support Analyst, IT	NiSource Corporate Services Company

## NiSource Corporate Services Company Charge Code Request Form

Date Submitted: 3/27/2012  
Name: J. Carr  
Department: IT Service Performance

Is this an update to an existing charge code? Yes

If yes to the question above, which NiSource affiliates or allocation codes need to be added or what modifications need to take place?

NGD: AS F1 CIS (91122001xx) need to add Retail Services, company 71(9112200171)

If this is a new charge code, what is the description of proposed charge code? (This is what will appear in the NCSC Inter-Company Billing system when bills are sent to NiSource affiliates)

Proposed effective date for charge code:

March 2012

Is this a capital charge code? If yes, what percentage is capital and what is the capital work order?

Which NiSource affiliates or groups of affiliates will be benefitting from the services rendered?

Retail Services, company 71


Can charges be billed directly to aforementioned affiliates? No

If no to the question above, what should the basis of allocation be?

Please Select a Basis of Allocation

The section below is for NCSC Accounting use only

Approved by: Jason Carnicelli  
Title: Financial Analyst  
Date Approved: 3/28/2012  
Charge Code Set Up: 9112200171

  
3/30/12

Comments:



~~NISource~~

Re: F1 O&M Charge Codes Requests - Update to Existing Charge Codes 

Jason Carnicelli to: Jennifer Carr

03/28/2012 09:23 AM

Cc: Benjamin Freiman, Brad Vangen, Jason Pfelffer, Michael Coffman

Jennifer,

The updates you requested have been completed.

Thanks,

Jason Carnicelli  
Financial Analyst  
NISource Corporate Services  
614-460-4207

Jennifer Carr

~~Jason: Please see the attached files for updates.~~

03/27/2012 02:39:50 PM

From: Jennifer Carr/NCS/Enterprise  
To: Jason Carnicelli/NCS/Enterprise@NISource  
Cc: Jason Pfelffer/NCS/Enterprise@NISource, Benjamin Freiman/NCS/Enterprise@NISource, Michael Coffman/NCS/Enterprise@NISource, Brad Vangen/NCS/Enterprise@NISource  
Date: 03/27/2012 02:39 PM  
Subject: F1 O&M Charge Codes Requests - Update to Existing Charge Codes

Jason,

Please see the attached files for updates to existing charge codes. These are need to book this month's F1 invoice. Please create prior to close.

Thank you!

Jennifer Carr  
Lead Financial Support Analyst  
NiSource  
Business (219) 647-6518  
email: jcarr@nlsource.com

[attachment "CRM\_Email Mktg\_Update\_JD\_80.xlsx" deleted by Jason Carnicelli/NCS/Enterprise]  
[attachment "NIPSCO CIS F1 AS\_Retail Services.xlsx" deleted by Jason Carnicelli/NCS/Enterprise]  
[attachment "NGD CIS F1 AS\_Retail Services.xlsx" deleted by Jason Carnicelli/NCS/Enterprise]

## Job Order Request Form

### Example 2

Involved in Job Order Initiation, Creation, and Approval:

<u>Name</u>	<u>Title</u>	<u>Company Affiliation</u>
Brad Vangen	Manager, NCSC Accounting	NiSource Corporate Services Company
Todd Good	Manager, Gas Operations Integration Center	NiSource Corporate Services Company
Benjamin Freiman	Senior Analyst, NCSC Accounting	NiSource Corporate Services Company
Tammy Smith	Administrative Assistant, NCSC	NiSource Corporate Services Company
Jeffrey Eing	Manager, Distribution Special Studies Accounting	NiSource Corporate Services Company
Craig Berberich	Manager, Accounting CMA & NRS	NiSource Corporate Services Company

## NISource Corporate Services Company Charge Code Request Form

Date Submitted: June 15, 2012  
Name: Todd Good  
Department: NGD Planning & Scheduling

Is this an update to an existing charge code? No

If yes to the question above, which NISource affiliates or allocation codes need to be added or what modifications need to take place?

If this is a new charge code, what is the description of proposed charge code? (This is what will appear in the NCSC Inter-Company Billing system when bills are sent to NISource affiliates)

NGD CONSTRUCTION - 95/5/ SPLIT

Proposed effective date for charge code:

June 2012

Is this a capital charge code? If yes, what percentage is capital and what is the capital work order?

YES - 95% CAPITAL -- 5% O&M

Which NISource affiliates or groups of affiliates will be benefitting from the services rendered?

53108703 - 32, 34, 35, 37, 38, 80, AD


Can charges be billed directly to aforementioned affiliates? Yes

If no to the question above, what should the basis of allocation be?

Basis 1 - Fixed Assets/Operating Expenses

The section below is for NCSC Accounting use only

Approved by: Benjamin Frelman  
Title: Senior Analyst  
Date Approved: June 20, 2012  
Charge Code Set Up: 53108703 32,34,35,37,38,80,AD

  
6/20/12

Comments:

**NISource** Benjamin  
Frelman/NCS/Enterprise  
06/20/2012 02:04 PM

To Tammy Smith/NCS/Enterprise, Todd C  
Good/NCS/Enterprise  
cc Jeffrey Eing/NCS/Enterprise@NISource, Craig  
Berberich/COH/Enterprise@NISource  
bcc  
Subject Re: Fw: NGD Construction Charge Code

Tammy and Todd- The charge code 53108703 - 32,34,35,37,38,AD - NGD CONSTRUCTION - 95/5/  
SPLIT, has been set up per your request as there are new duties for Dept 5310.

Jeff and Craig- The above charge code is 95% Capital and 5% O&M.



6-20-12 - NGD Construction.xlsx

---

Benjamin A. Frelman, CPA  
Senior Financial Analyst  
NISource Corporate Services  
Direct: 614-460-4667  
bfrelman@nlsource.com

Tammy Smith Ben, I did verify that the split should be 95% Capital and 5% O&M. 06/18/2012 09:13:42 AM

**NISource** Tammy Smith/NCS/Enterprise

06/18/2012 09:13 AM

To Benjamin Frelman/NCS/Enterprise@NiSource  
cc Brad Vangen/NCS/Enterprise@NiSource  
Subject Fw: NGD Construction Charge Code

Ben,

I did verify that the split should be 95% Capital and 5% O&M. Please see Todd Good's approval in the  
e-mail chain.

If you need any further info, please let me know.

Thanks!

Tammy

Tammy Smith  
Administrative Assistant  
Human Resources COH/CKY  
Office: 614-460-6401  
Cell: 614-989-5963  
Fax: 614-460-4736  
tsmith@nlsource.com

All People ~ Learning from One Another ~ Succeeding Together ~ Building a Great Organization  
----- Forwarded by Tammy Smith/NCS/Enterprise on 06/18/2012 09:10 AM -----

From: Todd C Good/NCS/Enterprise  
To: Tammy Smith/NCS/Enterprise@NiSource  
Date: 06/18/2012 09:09 AM  
Subject: Fw: NGD Construction Charge Code

I approve!!!!

Todd Good  
Manager of Operations Integration Center  
PH:(614) 460-4780  
Cell:(614) 205-2386  
tcgood@nsource.com

----- Forwarded by Todd C Good/NCS/Enterprise on 06/18/2012 09:09 AM -----

From: Tammy Smith/NCS/Enterprise  
To: Todd C Good/NCS/Enterprise@NiSource  
Cc: Benjamin Freiman/NCS/Enterprise@NiSource  
Date: 06/15/2012 04:10 PM  
Subject: NGD Construction Charge Code

Todd,

Attached is a copy of the request to create a new Co. 12 Charge Code for NGD Construction:



NGD Construction – Job Order Request Form.xlsx

Please approve and reply to all.

Once Corporate Accounting receives your approval, they will set up the charge codes.

If you have any questions, please let me know.

Thanks!

Tammy

Tammy Smith  
Administrative Assistant  
Human Resources COH/CKY  
Office: 614-460-6401  
Cell: 614-989-5963  
Fax: 614-460-4736  
tsmith@nsource.com

## Job Order Request Form

### Example 3

Involved in Job Order Initiation, Creation, and Approval:

<u>Name</u>	<u>Title</u>	<u>Company Affiliation</u>
Brad Vangen	Manager, NCSC Accounting	NiSource Corporate Services Company
June Konold	Segment Controller, Business Unit CFO - EDE	NiSource Corporate Services Company
Benjamin Freiman	Senior Analyst, NCSC Accounting	NiSource Corporate Services Company
Linda Moore	Assistant Segment Controller, Accounting COH	NiSource Corporate Services Company
Jeffrey Eing	Manager, Distribution Special Studies Accounting	NiSource Corporate Services Company
Patricia Klink	Administrative Assistant, Controller Distribution	NiSource Corporate Services Company

## NiSource Corporate Services Company Charge Code Request Form

Date Submitted: September 10, 2012  
Name: Jeff Eing  
Department: NGD accounting

Is this an update to an existing charge code? No

If yes to the question above, which NiSource affiliates or allocation codes need to be added or what modifications need to take place?

If this is a new charge code, what is the description of proposed charge code? (This is what will appear in the NCSC Inter-Company Billing system when bills are sent to NiSource affiliates)

NGD Accounting charge code to charge items below the line - department 5900.

Proposed effective date for charge code:

September 2012

Is this a capital charge code? If yes, what percentage is capital and what is the capital work order?

No

Which NiSource affiliates or groups of affiliates will be benefitting from the services rendered?

NGD

Can charges be billed directly to aforementioned affiliates? No

If no to the question above, what should the basis of allocation be?

Basis 1 - Fixed Assets/Operating Expenses


The section below is for NCSC Accounting use only

Approved by: Benjamin Frelman  
Title: Senior Analyst  
Date Approved: September 17, 2012  
Charge Code Set Up: 00590003AD

 9/20/12

Comments:

**NISource** Benjamin  
Freiman/NCS/Enterprise  
09/17/2012 11:51 AM

To Jeffrey EIng/NCS/Enterprise  
cc June Konold/NCS/Enterprise@NISource, Linda  
Moore/COH/Enterprise@NISource, Pat  
Klink/NCS/Enterprise@NISource  
bcc  
Subject Re: Job 0059 

Jeff,

I have set up the following charge code per your request:

00590003AD DISTRIBUTION ACCOUNTING - BELOW THE LINE


Please let me know if you have any questions or concerns.

Benjamin A. Freiman, CPA  
Senior Financial Analyst  
NISource Corporate Services  
Direct: 614-460-4667  
bfreiman@nisource.com

Jeffrey EIng See the attached request for a new charge code 09/10/2012 02:53:46 PM



Jeffrey EIng/NCS/Enterprise  
09/10/2012 02:53 PM

To Benjamin Freiman/NCS/Enterprise@NISource  
cc June Konold/NCS/Enterprise@NISource, Linda  
Moore/COH/Enterprise@NISource, Pat  
Klink/NCS/Enterprise@NISource  
Subject Re: Job 0059 

See the attached request for a new charge code under June Konold for below the line costs.



NGD Accounting Job Order(Charge Code) Request Form.xlsx

Thank You,  
Jeff EIng  
NGD Accounting Manager  
Special Studies  
614-460-4281

Benjamin Freiman Jeff, Attached is your request for Job 0059 09/10/2012 02:47:57 PM

**NISource** Benjamin  
Freiman/NCS/Enterprise  
09/10/2012 02:47 PM

To Jeffrey EIng/NCS/Enterprise@NISource  
cc  
Subject Job 0059



Jeff,

Attached is your request for Job: 0059, Sub: All, Co: All for the last few months. I also included on the second tab all active charge codes with a Job of 0059. I guess you can perform the necessary analysis from here.

Let me know if there is anything else I can do for you.

[attachment "Job 0059 for July12 and Aug12.xlsx" deleted by Jeffrey Elng/NCS/Enterprise]

Benjamin A. Freiman, CPA  
Senior Financial Analyst  
NiSource Corporate Services  
Direct: 614-460-4667  
bfreiman@nsource.com

## Job Order Request Form

### Example 4

Involved in Job Order Initiation, Creation, and Approval:

<u>Name</u>	<u>Title</u>	<u>Company Affiliation</u>
Brad Vangen	Manager, NCSC Accounting	NiSource Corporate Services Company
Nina Patel	Lead Analyst, Distribution Special Studies Accounting	NiSource Corporate Services Company
Benjamin Freiman	Senior Analyst, NCSC Accounting	NiSource Corporate Services Company
Jeffrey Eing	Manager, Distribution Special Studies Accounting	NiSource Corporate Services Company

## NISource Corporate Services Company Charge Code Request Form

Date Submitted: October 17, 2012  
Name: Nina Patel  
Department: 0059000

Is this an update to an existing charge code? No

If yes to the question above, which NISource affiliates or allocation codes need to be added or what modifications need to take place?

If this is a new charge code, what is the description of proposed charge code? This description should include the nature of the work to be performed. (This is what will appear in the NCSC Inter-Company Billing system when bills are sent to NISource affiliates)

PAC/ LOBBYING - NON-RECOVERABLE

Proposed effective date for charge code:  
Beginning Date: October 2012      End Date:      Month      Year

Is this a capital charge code? If yes, what percentage is capital and what is the capital work order?

No

Which NISource affiliates or groups of affiliates will be benefitting from the services rendered?

Individual companies/states that can benefit from PAC and Lobbying


Can charges be billed directly to aforementioned affiliates? Yes

If no to the question above, what should the basis of allocation be?

Please Select a Basis of Allocation

The section below is for NCSC Accounting use only

Approved by: Benjamin Freiman  
Title: Senior Analyst  
Date Approved: October 17, 2012  
Charge Code Set Up: 02420010, 14,32,34,35,37,38,51,59,80

  
10/31/12

Comments:

**NISource** Benjamin  
Freiman/NCS/Enterprise  
10/17/2012 04:05 PM

To Nina Patel/NCS/Enterprise  
cc Jeffrey Eling/NCS/Enterprise@NISource  
bcc  
Subject PAC/Lobbying

Nina,

I have set up the following charge code per our discussion. I set it up for all states and the larger companies. Hopefully this will work. If you think we need allocators we can always add them later, but it appears the majority can be direct billed.

0242001014 PAC/ LOBBYING - NON-RECOVERABLE  
0242001032 PAC/ LOBBYING - NON-RECOVERABLE  
0242001034 PAC/ LOBBYING - NON-RECOVERABLE  
0242001035 PAC/ LOBBYING - NON-RECOVERABLE  
0242001037 PAC/ LOBBYING - NON-RECOVERABLE  
0242001038 PAC/ LOBBYING - NON-RECOVERABLE  
0242001051 PAC/ LOBBYING - NON-RECOVERABLE  
0242001059 PAC/ LOBBYING - NON-RECOVERABLE  
0242001080 PAC/ LOBBYING - NON-RECOVERABLE

Benjamin A. Freiman, CPA  
Senior Financial Analyst  
NISource Corporate Services  
Direct: 614-460-4667  
bfreiman@nlsources.com

## Job Order Request Form

### Example 5

Involved in Job Order Initiation, Creation, and Approval:

<u>Name</u>	<u>Title</u>	<u>Company Affiliation</u>
Brad Vangen	Manager, NCSC Accounting	NiSource Corporate Services Company
Mark Katko	Manager, Regulatory Accounting - Corp	NiSource Corporate Services Company
Benjamin Freiman	Senior Analyst, NCSC Accounting	NiSource Corporate Services Company
Jeffrey Eing	Manager, Distribution Special Studies Accounting	NiSource Corporate Services Company

## NiSource Corporate Services Company Charge Code Request Form

Date Submitted: <11/08/2012>  
Name: <Mark Katko>  
Department: <Regulatory Strategy & Support>

Is this an update to an existing charge code? No

If yes to the question above, which NiSource affiliates or allocation codes need to be added or what modifications need to take place?

If this is a new charge code, what is the description of proposed charge code? This description should include the nature of the work to be performed. (This is what will appear in the NCSC Inter-Company Billing system when bills are sent to NiSource affiliates)

CKY 2013 Rate Case - Incremental Expenses

Proposed effective date for charge code:  
Beginning Date: December 2012      End Date: December 2013

Is this a capital charge code? If yes, what percentage is capital and what is the capital work order?

No.

Which NiSource affiliates or groups of affiliates will be benefitting from the services rendered?

CKY (Company 32).


Can charges be billed directly to aforementioned affiliates? Yes

If no to the question above, what should the basis of allocation be?

Please Select a Basis of Allocation

The section below is for NCSC Accounting use only

Approved by: Benjamin Freiman  
Title: Senior Analyst  
Date Approved: November 9, 2012  
Charge Code Set Up: 0577320032

  
11/29/12

Comments:

**NISource** Benjamin  
Freiman/NCS/Enterprise  
11/09/2012 08:56 AM

To Mark Katko/NCS/Enterprise  
cc Brad Vangen/NCS/Enterprise@NISource  
bcc  
Subject Re: Job Order Request

Mark,

I have set up the following charge code per your request.

0577320332 CKY 2013 RATE CASE - INCREMENTAL EXPENSES

Let me know if you have any questions.

Benjamin A. Freiman, CPA  
Senior Financial Analyst  
NISource Corporate Services  
Direct: 614-460-4667  
bfreiman@nsource.com

Mark Katko Attached below is a request for a new job order. 11/07/2012 04:39:35 PM



NISOURCE  
GAS DISTRIBUTION

Mark Katko/NCS/Enterprise  
11/07/2012 04:39 PM

To Brad Vangen/NCS/Enterprise@NISource  
cc Benjamin Freiman/NCS/Enterprise@NISource  
Subject Re: Job Order Request

Attached below is a request for a new job order for the upcoming CKY rate case. Thanks.



CKY Rate Case Job Order Request Form.xlsx

Mark Katko  
Manager, Regulatory Strategy & Support | NiSource Gas Distribution  
Office: 614-460-4822 | Mobile: 614-546-7349  
mkatko@nsource.com

Brad Vangen Mark - Complete the attached request form. 11/06/2012 01:31:26 PM  
Mark Katko/NCS/Enterprise



NISOURCE  
GAS DISTRIBUTION

Mark Katko/NCS/Enterprise  
11/06/2012 11:14 AM

To Brad Vangen/NCS/Enterprise@NISource  
cc  
Subject Job Order Request

Brad,

I am requesting that a job order be established to capture expenditures for the upcoming CKY rate case (FERC account 928). Please let me know if you need additional information.

Thanks.

Mark Katko  
Manager, Regulatory Strategy & Support | NISource Gas Distribution  
Office: 614-460-4822 | Mobile: 614-546-7349  
mkatko@nisource.com



**COLUMBIA GAS OF KENTUCKY, INC.  
RESPONSE TO ATTORNEY GENERAL'S FIRST  
REQUEST FOR INFORMATION  
DATED JULY 19, 2013**

68. Reference page 12 of Mrs. Taylor's testimony
- a. Has Columbia contested "any particular item for which they are billed" in the past five years?
  - b. If yes, identify each item along with the date of the contest, the cost of the item, and whether Columbia was ultimately billed anything less than that which was originally billed.

**Response:**

Columbia contacts NCSC when Columbia has questions regarding charges billed by NCSC. These inquiries are informal in nature and have not resulted in any contested charges over the past five years. Columbia does not track each of the inquiries.

**COLUMBIA GAS OF KENTUCKY, INC.  
RESPONSE TO ATTORNEY GENERAL'S FIRST  
REQUEST FOR INFORMATION  
DATED JULY 19, 2013**

69. Reference Attachment SMT-2 at Article 4.1.
- a. Have "the Company and Client" met annually since the signing of the agreement to assess the quality of the Services being provided...?"
  - b. If no, explain why not. If yes, have any changes been made or addressed.

**Response:**

NiSource Corporate Business Services issues an annual customer survey to its operating customers across NiSource to assess its quality of its Services being rendered. In addition, the NiSource Corporate Services Company Controller meets with Senior Management periodically to discuss fluctuations between budget and actual NCSC costs billed to Columbia Gas of Kentucky. No formal agenda or minutes were maintained from those meetings. These meetings are set up to be informal in nature and discuss any aspects of NCSC including but not limited to,

allocations, departmental set up, and variations between budgets and actuals. No changes have been made to the Service Agreement due to these meetings.

KY PSC Case No. 2013-00167  
Response to AG's Data Request Set One No. 070  
Respondent: Susanne M. Taylor

**COLUMBIA GAS OF KENTUCKY, INC.  
RESPONSE TO ATTORNEY GENERAL'S FIRST  
REQUEST FOR INFORMATION  
DATED JULY 19, 2013**

70. Reference the answer to prior question. Provide any and all documentation pertaining to any of the meetings.

**Response:**

Please refer to Columbia's response to AG data request number 1-69.

**COLUMBIA GAS OF KENTUCKY, INC.  
RESPONSE TO ATTORNEY GENERAL'S FIRST  
REQUEST FOR INFORMATION  
DATED JULY 19, 2013**

71. Provide a copy of an example of a current residential bill based on the average residential usage. The example should include any and all charges, whether customer charge, DSM, volumetric measured in Mcf or otherwise, price per Mcf or other unit, AMRP rider/tracker, franchise fees, taxes, etc. The bill should be indicative of the total amount charged to the customer for that billing cycle. (Use a resident of Lexington, Kentucky as the example.)

**Response:**

Please see the calculation of a total residential bill at current rates<sup>1</sup> below

---

<sup>1</sup> Current rates as filed in Columbia's Application using rates effective February 28, 2013

Total Bill at Current Rates		Average <u>Usage</u>	Current <u>Rate</u>	Current <u>Bill</u>
		(1)	(2)	(3)
Monthly Customer Charge	\$/Bill		12.35	12.35
AMRP Rider	\$/Bill		1.06	1.06
EECP Rider	\$/Bill		(0.24)	(0.24)
Gas Delivery Charge	\$/Mcf	5.5	1.8715	10.29
Gas Supply Cost (GCA)	\$/Mcf	5.5	4.0634	22.35
Uncollectible Gas Gost Rider	\$/Mcf	5.5	0.0603	0.33
Research and Development Factor	\$/Mcf	5.5	0.0150	0.08
Energy Assistance Program Surcharge	\$/Mcf	5.5	0.0615	0.34
Charges before Tax				46.56
Lex.-Fay. Urban County Government	3.2%			1.47
School Tax	3.0%			1.40
Sales Tax	6.0%			2.97
Total Bill at Current Rates				52.39

**COLUMBIA GAS OF KENTUCKY, INC.  
RESPONSE TO ATTORNEY GENERAL'S FIRST  
REQUEST FOR INFORMATION  
DATED JULY 19, 2013**

72. Provide a copy of an example of the proposed residential bill based on the average residential usage. The example should include any and all charges, whether customer charge, DSM, volumetric measured in Mcf or otherwise, price per Mcf or other unit, AMRP rider/tracker, franchise fees, taxes, etc. The bill should be indicative of the total amount charged to the customer for that billing cycle. (Use a resident of Lexington, Kentucky as the example.)

**Response:**

Please see the calculation of a total residential bill at proposed rates below.

Total Bill at Proposed Rates			Proposed Rate (4)	Proposed Bill (5)
Monthly Customer Charge	\$/Bill		18.50	18.50
AMRP Rider	\$/Bill		-	-
EECP Rider	\$/Bill		(0.24)	(0.24)
Gas Delivery Charge	\$/Mcf	5.5	2.4322	13.38
Gas Supply Cost (GCA)	\$/Mcf	5.5	4.0634	22.35
Uncollectible Gas Gost Rider	\$/Mcf	5.5	0.0243	0.13
Research and Development Factor	\$/Mcf	5.5	0.0150	0.08
Energy Assistance Program Surcharge	\$/Mcf	5.5	0.0615	0.34
Charges before Tax				54.54
Lex.-Fay. Urban County Government		3.2%		1.72
School Tax		3.0%		1.64
Sales Tax		6.0%		3.47
Total Bill at Current Rates				61.37



KY PSC Case No. 2013-00167  
Response to AG's Data Request Set One No. 073  
Respondent: John J. Spanos

**COLUMBIA GAS OF KENTUCKY, INC.  
RESPONSE TO ATTORNEY GENERAL'S FIRST  
REQUEST FOR INFORMATION  
DATED JULY 19, 2013**

73. Please provide a list of Columbia's retirement units.

**Response:**

Please see KY AG DR Set 1 No. 073 Attachment A.

<u>retire_unit</u>	<u>external_retire_unit</u>	<u>company</u>
11m, 125cvm	416667	Columbia Gas of Kentucky
35m, 125cvm	416664	Columbia Gas of Kentucky
53m, 125cvm	416665	Columbia Gas of Kentucky
A/C & Heater Portable	262036	Columbia Gas of Kentucky
A/C Equip-Automotive	810002	Columbia Gas of Kentucky
AC/DC Power Supply w/modem	530100	Columbia Gas of Kentucky
Ac/H Air Cleaner	029900	Columbia Gas of Kentucky
Ac/H Air Handler	029400	Columbia Gas of Kentucky
Ac/H Burner Oil/Gas	029850	Columbia Gas of Kentucky
Ac/H Chiller	029300	Columbia Gas of Kentucky
Ac/H Chld Water Coil	029600	Columbia Gas of Kentucky
Ac/H Compressor	029500	Columbia Gas of Kentucky
Ac/H Cooling Tower	029200	Columbia Gas of Kentucky
Ac/H Engine	029700	Columbia Gas of Kentucky
Ac/H Furnace/Boiler	029800	Columbia Gas of Kentucky
Ac/H Humidifier	029950	Columbia Gas of Kentucky
Accounting Machine	262005	Columbia Gas of Kentucky
Adsorber, 72"	006084	Columbia Gas of Kentucky
Affiliate Easement	361310	Columbia Gas of Kentucky
AFUDC	919191	Columbia Gas of Kentucky
Air Compressor	810003	Columbia Gas of Kentucky
Air Compressor, 295100	295100	Columbia Gas of Kentucky
Air Conditioner, Portable	262035	Columbia Gas of Kentucky
Air Tools	810022	Columbia Gas of Kentucky
Air Velocity Meter	810024	Columbia Gas of Kentucky
Alarm High/Low Comm	030000	Columbia Gas of Kentucky
Alarm Sys Fire Det	032400	Columbia Gas of Kentucky
Alarm Sys L/B Detect	032200	Columbia Gas of Kentucky
Alarm System Burglar	032100	Columbia Gas of Kentucky
Alarm System Safety	032300	Columbia Gas of Kentucky
Alignment Machine	810026	Columbia Gas of Kentucky
Amer Cvmp 11m/125	416880	Columbia Gas of Kentucky
Amer Cvmp 11m/1440	416884	Columbia Gas of Kentucky
Amer Cvmp 11m/300	416881	Columbia Gas of Kentucky
Amer Cvmp 11m/575	416882	Columbia Gas of Kentucky
Amer Cvmp 11m/720	416883	Columbia Gas of Kentucky
Amer Cvmp 35m/125	416871	Columbia Gas of Kentucky
Amer Cvmp 35m/1440	416875	Columbia Gas of Kentucky
Amer Cvmp 35m/300	416872	Columbia Gas of Kentucky
Amer Cvmp 35m/575	416873	Columbia Gas of Kentucky
Amer Cvmp 35m/720	416874	Columbia Gas of Kentucky
Amer Cvmp 53m/125	416876	Columbia Gas of Kentucky
Amer Cvmp 53m/300	416877	Columbia Gas of Kentucky
Amer Cvmp 53m/575	416878	Columbia Gas of Kentucky
American 5	416004	Columbia Gas of Kentucky
American 10	416012	Columbia Gas of Kentucky
American 11c	416016	Columbia Gas of Kentucky
American 20a	416022	Columbia Gas of Kentucky
American 20m	416020	Columbia Gas of Kentucky
American 250b	416609	Columbia Gas of Kentucky
American 25c	416024	Columbia Gas of Kentucky
American 30	416028	Columbia Gas of Kentucky
American 3gt10m/1440	416949	Columbia Gas of Kentucky

<u>retire_unit</u>	<u>external_retire_unit</u>	<u>company</u>
American 3gt10m/275	416948	Columbia Gas of Kentucky
American 40c	416032	Columbia Gas of Kentucky
American 4gt16m/1440	416953	Columbia Gas of Kentucky
American 4gt16m/300	416951	Columbia Gas of Kentucky
American 4gt16m/720	416952	Columbia Gas of Kentucky
American 4gt16m125	416950	Columbia Gas of Kentucky
American 500b	416610	Columbia Gas of Kentucky
American 5b225	416604	Columbia Gas of Kentucky
American 6" Gts Turb/Meter 1	416935	Columbia Gas of Kentucky
American 60	416040	Columbia Gas of Kentucky
American 6gt30m/1440	416957	Columbia Gas of Kentucky
American 6gt30m/300	416955	Columbia Gas of Kentucky
American 6gt30m/720	416956	Columbia Gas of Kentucky
American 6gt30m125	416954	Columbia Gas of Kentucky
American 80b	416600	Columbia Gas of Kentucky
American 8gt60m/1440	416961	Columbia Gas of Kentucky
American 8gt60m/300	416959	Columbia Gas of Kentucky
American 8gt60m/720	416960	Columbia Gas of Kentucky
American 8gt60m125	416958	Columbia Gas of Kentucky
American Ac175	416603	Columbia Gas of Kentucky
American AC630 : 416619	416619	Columbia Gas of Kentucky
American AI1000	416611	Columbia Gas of Kentucky
American AI1400	416613	Columbia Gas of Kentucky
American AI175	416602	Columbia Gas of Kentucky
American AI2300	416617	Columbia Gas of Kentucky
American AI250	416608	Columbia Gas of Kentucky
American AI425	416616	Columbia Gas of Kentucky
American AI5000	416615	Columbia Gas of Kentucky
American AI800	416612	Columbia Gas of Kentucky
American AR250	416614	Columbia Gas of Kentucky
American Du 5000/350	416620	Columbia Gas of Kentucky
American Meter Rpm 35m/175#	416623	Columbia Gas of Kentucky
American Meter Rpm 55m/175#	416624	Columbia Gas of Kentucky
American Meters AT 210	416606	Columbia Gas of Kentucky
American Meters AT 250	416607	Columbia Gas of Kentucky
American Rotary 7.0M	416879	Columbia Gas of Kentucky
American Turbo 4" 175#	416934	Columbia Gas of Kentucky
American W-210	416045	Columbia Gas of Kentucky
American W-250	416046	Columbia Gas of Kentucky
American W-300	416047	Columbia Gas of Kentucky
American W-75	416044	Columbia Gas of Kentucky
Amplifier Utility	031000	Columbia Gas of Kentucky
Analyst Thermo	355030	Columbia Gas of Kentucky
Analyzer Engine	355035	Columbia Gas of Kentucky
Analyzer Gases	355040	Columbia Gas of Kentucky
Analyzer Heat Prover	355045	Columbia Gas of Kentucky
Analyzer Moisture	355050	Columbia Gas of Kentucky
Antenna	033000	Columbia Gas of Kentucky
Audio Announcer	420020	Columbia Gas of Kentucky
Audio Meter	420030	Columbia Gas of Kentucky
Audio/Vis Remo Contr	420003	Columbia Gas of Kentucky
Balancer Wheel	810052	Columbia Gas of Kentucky
Barometer	355085	Columbia Gas of Kentucky

<u>retire_unit</u>	<u>external_retire_unit</u>	<u>company</u>
Base Stat Identifier	047000	Columbia Gas of Kentucky
Base Station Radio	046000	Columbia Gas of Kentucky
Battery	049000	Columbia Gas of Kentucky
Battery Charger Stat	050000	Columbia Gas of Kentucky
Battery Charger, Portable	810056	Columbia Gas of Kentucky
Bed Hospital	420045	Columbia Gas of Kentucky
Bell Joint Seal Eq	810059	Columbia Gas of Kentucky
Bender Tubular Matl	810064	Columbia Gas of Kentucky
Beverage Carrier	420050	Columbia Gas of Kentucky
Bin Storage	810072	Columbia Gas of Kentucky
Binding Machine	262075	Columbia Gas of Kentucky
Bit Drilling	192009	Columbia Gas of Kentucky
Blower Combust Air	052300	Columbia Gas of Kentucky
Blower Electric	810080	Columbia Gas of Kentucky
Blower Forced Draft	052100	Columbia Gas of Kentucky
Blower Induced Draft	052200	Columbia Gas of Kentucky
Blower Snow	810084	Columbia Gas of Kentucky
Blower Vacuum	052600	Columbia Gas of Kentucky
Blower Vapor Exhaust	052400	Columbia Gas of Kentucky
Blower Vapor Return	052500	Columbia Gas of Kentucky
Boiler	057000	Columbia Gas of Kentucky
Bolt Threading Mach	810096	Columbia Gas of Kentucky
Booth Shelter	810100	Columbia Gas of Kentucky
Booth Spray Paint	810104	Columbia Gas of Kentucky
Borescope	810106	Columbia Gas of Kentucky
Boring & Tap Machine	810112	Columbia Gas of Kentucky
Boring Machine	810108	Columbia Gas of Kentucky
Bottling Apparatus	065000	Columbia Gas of Kentucky
Box Locator	810120	Columbia Gas of Kentucky
Brake Relining Equip	810124	Columbia Gas of Kentucky
Breaker Paving	810128	Columbia Gas of Kentucky
Breathing Equipment	420057	Columbia Gas of Kentucky
Cabinet	262110	Columbia Gas of Kentucky
Calculator	262120	Columbia Gas of Kentucky
Calibrator Dosimeter	355102	Columbia Gas of Kentucky
Caliper Ultrasonic	810144	Columbia Gas of Kentucky
Calorimeter	078000	Columbia Gas of Kentucky
Camera	420100	Columbia Gas of Kentucky
Capacity, Sale Of	084000	Columbia Gas of Kentucky
Car Wash	810156	Columbia Gas of Kentucky
Card Sorter	262135	Columbia Gas of Kentucky
Cart (Dolly)	810158	Columbia Gas of Kentucky
Cash Register	420120	Columbia Gas of Kentucky
Casing Well, 4"	096026	Columbia Gas of Kentucky
Casing Well, 4-1/2"	096027	Columbia Gas of Kentucky
Casing Well, 4-7/8"	096029	Columbia Gas of Kentucky
Casing Well, 5"	096030	Columbia Gas of Kentucky
Casing Well, 5-1/2"	096033	Columbia Gas of Kentucky
Casing Well, 5-3/16"	096031	Columbia Gas of Kentucky
Casing Well, 5-5/8"	096034	Columbia Gas of Kentucky
Casing Well, 6"	096036	Columbia Gas of Kentucky
Casing Well, 6-1/4"	096070	Columbia Gas of Kentucky
Casing Well, 6-5/8"	096037	Columbia Gas of Kentucky

<u>retire_unit</u>	<u>external_retire_unit</u>	<u>company</u>
Casing Well, 7"	096038	Columbia Gas of Kentucky
Casing Well, 7-5/8"	096039	Columbia Gas of Kentucky
Casing Well, 8"	096040	Columbia Gas of Kentucky
Casing Well, 8-5/8"	096042	Columbia Gas of Kentucky
Casing Well, 10"	096045	Columbia Gas of Kentucky
Casing Well, 10-5/8"	096046	Columbia Gas of Kentucky
Casing Well, 11"	096048	Columbia Gas of Kentucky
Casing Well, 12"	096050	Columbia Gas of Kentucky
Casing Well, 13-3/8"	096052	Columbia Gas of Kentucky
Casing Well, 14"	096054	Columbia Gas of Kentucky
Casing Well, 16"	096056	Columbia Gas of Kentucky
Casing Well, 18"	096057	Columbia Gas of Kentucky
Casing Well, 20"	096058	Columbia Gas of Kentucky
Casing Well, 24"	096060	Columbia Gas of Kentucky
Cellular Phone	775400	Columbia Gas of Kentucky
Cent Oiling System	101000	Columbia Gas of Kentucky
Chain Repair Tool	810160	Columbia Gas of Kentucky
Chair	262150	Columbia Gas of Kentucky
Chart Changer - Auto	102000	Columbia Gas of Kentucky
Cleaner Parts	810168	Columbia Gas of Kentucky
Cleaner Steam	810172	Columbia Gas of Kentucky
Cleaner-Filter Fuel Gas	104500	Columbia Gas of Kentucky
Cleaner-Filter Selexol	104600	Columbia Gas of Kentucky
Cleaner-Filter, Air	104100	Columbia Gas of Kentucky
Cleaner-Filter, Glycol	104200	Columbia Gas of Kentucky
Cleaner-Filter, Oil	104300	Columbia Gas of Kentucky
Cleaner-Filter, Water	104400	Columbia Gas of Kentucky
Cleveland 5	416054	Columbia Gas of Kentucky
Cleveland 10	416058	Columbia Gas of Kentucky
Cleveland 20	416062	Columbia Gas of Kentucky
Cleveland 30	416066	Columbia Gas of Kentucky
Cleveland 45	416070	Columbia Gas of Kentucky
Cleveland 60	416074	Columbia Gas of Kentucky
Cleveland 150	416078	Columbia Gas of Kentucky
Clock Watchmans	420160	Columbia Gas of Kentucky
CNG Station, Fully Equipped	109100	Columbia Gas of Kentucky
CNG Station, Moderately Equipped	109200	Columbia Gas of Kentucky
Coffee Urn	420180	Columbia Gas of Kentucky
Collator	262170	Columbia Gas of Kentucky
Collector Dust/Fume	810196	Columbia Gas of Kentucky
Combiner-Splitter	107000	Columbia Gas of Kentucky
Combustible Gas Ind	810198	Columbia Gas of Kentucky
Comp Syst-Ac/Heat	029130	Columbia Gas of Kentucky
Comp Syst-Air Cond	029110	Columbia Gas of Kentucky
Comp Syst-Heating	029120	Columbia Gas of Kentucky
Compactor	420187	Columbia Gas of Kentucky
Compressing Unit, Packaged	109010	Columbia Gas of Kentucky
Compressor Unit, Packaged	108000	Columbia Gas of Kentucky
Compressor, Air	110000	Columbia Gas of Kentucky
Compressor, Propane	113000	Columbia Gas of Kentucky
Computer Software	121000	Columbia Gas of Kentucky
Computer, Analog	116100	Columbia Gas of Kentucky
Computer, Digital	116200	Columbia Gas of Kentucky

<u>retire_unit</u>	<u>external_retire_unit</u>	<u>company</u>
Computer, Graphic	116300	Columbia Gas of Kentucky
Computer, Personal	116400	Columbia Gas of Kentucky
Con Unit-Secdy Strge	810205	Columbia Gas of Kentucky
Concrete Trowler	810199	Columbia Gas of Kentucky
Conelrad Receiver (Multimeter)	355150	Columbia Gas of Kentucky
Console	262185	Columbia Gas of Kentucky
Console Telecontrol	123000	Columbia Gas of Kentucky
Containr Load Lugger	810203	Columbia Gas of Kentucky
Contr In Aid Const	124000	Columbia Gas of Kentucky
Control Remote Radio	125000	Columbia Gas of Kentucky
Control Tower	130000	Columbia Gas of Kentucky
Control, Conductivity	131100	Columbia Gas of Kentucky
Control, Differential	131200	Columbia Gas of Kentucky
Control, Humidity	131300	Columbia Gas of Kentucky
Control, Ph	131400	Columbia Gas of Kentucky
Control, Position	131500	Columbia Gas of Kentucky
Control, Pressure	131600	Columbia Gas of Kentucky
Control, Speed	131700	Columbia Gas of Kentucky
Control, Temperature	131800	Columbia Gas of Kentucky
Control, Torque	131900	Columbia Gas of Kentucky
Controller Telemetering Flow	128100	Columbia Gas of Kentucky
Controller Telemetering Press	128200	Columbia Gas of Kentucky
Converter, Electronic	134000	Columbia Gas of Kentucky
Converter, Phase	134100	Columbia Gas of Kentucky
Conveyer Portable	810208	Columbia Gas of Kentucky
Conveyor System	135000	Columbia Gas of Kentucky
Cool Tower Superstr	143000	Columbia Gas of Kentucky
Copying Machine	262195	Columbia Gas of Kentucky
Corr Sys I/C Grd Bed	145330	Columbia Gas of Kentucky
Corr Sys Rectifier	145310	Columbia Gas of Kentucky
Corr Sys Sac Anode	145100	Columbia Gas of Kentucky
Corrosion Instrument	355155	Columbia Gas of Kentucky
Counter	262205	Columbia Gas of Kentucky
Coupon Cutting Mach	810212	Columbia Gas of Kentucky
Cplg Eq-Clutch	150100	Columbia Gas of Kentucky
Cpr Equip-Recusi Ann	420106	Columbia Gas of Kentucky
Crane Bridge	810220	Columbia Gas of Kentucky
Crane Portable	810216	Columbia Gas of Kentucky
Crane, Traveling	153300	Columbia Gas of Kentucky
Credenza	262210	Columbia Gas of Kentucky
Crimper (Machine)	810224	Columbia Gas of Kentucky
CRT Display	120001	Columbia Gas of Kentucky
Csg Hd V Assy, 10x2	090041	Columbia Gas of Kentucky
Csg Hd V Assy, 10x3	090042	Columbia Gas of Kentucky
Csg Hd V Assy, 10x4	090043	Columbia Gas of Kentucky
Csg Hd V Assy, 10x5	090044	Columbia Gas of Kentucky
Csg Hd V Assy, 10x7	090022	Columbia Gas of Kentucky
Csg Hd V Assy, 10x9	090045	Columbia Gas of Kentucky
Csg Hd V Assy, 11x2	090046	Columbia Gas of Kentucky
Csg Hd V Assy, 11x3	090047	Columbia Gas of Kentucky
Csg Hd V Assy, 11x4	090048	Columbia Gas of Kentucky
Csg Hd V Assy, 11x5	090049	Columbia Gas of Kentucky
Csg Hd V Assy, 13x3"	090050	Columbia Gas of Kentucky

<u>retire_unit</u>	<u>external_retire_unit</u>	<u>company</u>
Csg Hd V Assy, 13x4"	090051	Columbia Gas of Kentucky
Csg Hd V Assy, 13x5"	090052	Columbia Gas of Kentucky
Csg Hd V Assy, 2x1"	090035	Columbia Gas of Kentucky
Csg Hd V Assy, 3x1"	090034	Columbia Gas of Kentucky
Csg Hd V Assy, 4x1"	090033	Columbia Gas of Kentucky
Csg Hd V Assy, 4x2"	090032	Columbia Gas of Kentucky
Csg Hd V Assy, 5x2"	090031	Columbia Gas of Kentucky
Csg Hd V Assy, 5x3"	090029	Columbia Gas of Kentucky
Csg Hd V Assy, 7x2"	090030	Columbia Gas of Kentucky
Csg Hd V Assy, 7x3"	090028	Columbia Gas of Kentucky
Csg Hd V Assy, 7x4"	090026	Columbia Gas of Kentucky
Csg Hd V Assy, 7x5"	090036	Columbia Gas of Kentucky
Csg Hd V Assy, 8x2"	090037	Columbia Gas of Kentucky
Csg Hd V Assy, 8x3"	090027	Columbia Gas of Kentucky
Csg Hd V Assy, 8x4"	090025	Columbia Gas of Kentucky
Csg Hd V Assy, 8x5"	090024	Columbia Gas of Kentucky
Csg Hd V Assy, 9x2"	090038	Columbia Gas of Kentucky
Csg Hd V Assy, 9x3"	090039	Columbia Gas of Kentucky
Csg Hd V Assy, 9x4"	090040	Columbia Gas of Kentucky
Csg Hd V Assy, 9x5"	090023	Columbia Gas of Kentucky
Csg Hy/Rrxing, 1"	093010	Columbia Gas of Kentucky
Csg Hy/Rrxing, 1-1/2"	093015	Columbia Gas of Kentucky
Csg Hy/Rrxing, 1-1/4"	093012	Columbia Gas of Kentucky
Csg Hy/Rrxing, 1-3/8"	093014	Columbia Gas of Kentucky
Csg Hy/Rrxing, 2"	093016	Columbia Gas of Kentucky
Csg Hy/Rrxing, 2-1/2"	093018	Columbia Gas of Kentucky
Csg Hy/Rrxing, 3"	093021	Columbia Gas of Kentucky
Csg Hy/Rrxing, 3-1/2"	093025	Columbia Gas of Kentucky
Csg Hy/Rrxing, 3-1/4"	093024	Columbia Gas of Kentucky
Csg Hy/Rrxing, 4"	093026	Columbia Gas of Kentucky
Csg Hy/Rrxing, 4-1/2"	093027	Columbia Gas of Kentucky
Csg Hy/Rrxing, 4-7/8"	093029	Columbia Gas of Kentucky
Csg Hy/Rrxing, 5"	093030	Columbia Gas of Kentucky
Csg Hy/Rrxing, 5-1/2"	093033	Columbia Gas of Kentucky
Csg Hy/Rrxing, 5-1/4"	093032	Columbia Gas of Kentucky
Csg Hy/Rrxing, 5-3/16"	093031	Columbia Gas of Kentucky
Csg Hy/Rrxing, 5-5/8"	093034	Columbia Gas of Kentucky
Csg Hy/Rrxing, 6"	093036	Columbia Gas of Kentucky
Csg Hy/Rrxing, 6-1/4"	093070	Columbia Gas of Kentucky
Csg Hy/Rrxing, 6-5/8"	093037	Columbia Gas of Kentucky
Csg Hy/Rrxing, 7"	093038	Columbia Gas of Kentucky
Csg Hy/Rrxing, 7-5/8"	093039	Columbia Gas of Kentucky
Csg Hy/Rrxing, 8"	093040	Columbia Gas of Kentucky
Csg Hy/Rrxing, 8-1/4"	093041	Columbia Gas of Kentucky
Csg Hy/Rrxing, 8-5/8"	093042	Columbia Gas of Kentucky
Csg Hy/Rrxing, 10"	093045	Columbia Gas of Kentucky
Csg Hy/Rrxing, 10-3/4"	093047	Columbia Gas of Kentucky
Csg Hy/Rrxing, 10-5/8"	093046	Columbia Gas of Kentucky
Csg Hy/Rrxing, 11"	093048	Columbia Gas of Kentucky
Csg Hy/Rrxing, 12"	093050	Columbia Gas of Kentucky
Csg Hy/Rrxing, 12-5/8"	093071	Columbia Gas of Kentucky
Csg Hy/Rrxing, 13-3/8"	093052	Columbia Gas of Kentucky
Csg Hy/Rrxing, 14"	093054	Columbia Gas of Kentucky

retire_unit	external_retire_unit	company
Csg Hy/Rrxing, 16"	093056	Columbia Gas of Kentucky
Csg Hy/Rrxing, 18"	093057	Columbia Gas of Kentucky
Csg Hy/Rrxing, 20"	093058	Columbia Gas of Kentucky
Csg Hy/Rrxing, 24"	093060	Columbia Gas of Kentucky
Csg Hy/Rrxing, 30"	093063	Columbia Gas of Kentucky
Csg Hy/Rrxing, 36"	093066	Columbia Gas of Kentucky
Ctng Thickness Gauge	810190	Columbia Gas of Kentucky
Cutter Brush Power	810230	Columbia Gas of Kentucky
Cutter Power Frost	810232	Columbia Gas of Kentucky
Dam	170000	Columbia Gas of Kentucky
Data Card Badging System	172000	Columbia Gas of Kentucky
Data Control Unit	120014	Columbia Gas of Kentucky
Data Logger	120002	Columbia Gas of Kentucky
Data Set - Comm	174000	Columbia Gas of Kentucky
Dehumidifier	262215	Columbia Gas of Kentucky
Dehydration Unit, Packaged	175000	Columbia Gas of Kentucky
Desk	262220	Columbia Gas of Kentucky
Developer	262225	Columbia Gas of Kentucky
Dictating Machine	262230	Columbia Gas of Kentucky
Digger Mech Hole	810244	Columbia Gas of Kentucky
Dishwasher	420240	Columbia Gas of Kentucky
Disk Storage	120003	Columbia Gas of Kentucky
Disposal	420260	Columbia Gas of Kentucky
Distributing Frame	182000	Columbia Gas of Kentucky
Dosimeter	355180	Columbia Gas of Kentucky
Drafting Machine	262245	Columbia Gas of Kentucky
Drainage System	189100	Columbia Gas of Kentucky
Drawer Suspens File	810254	Columbia Gas of Kentucky
Drill Electric	810256	Columbia Gas of Kentucky
Drill Press	810264	Columbia Gas of Kentucky
Drip W/FI S/O, 2"	195116	Columbia Gas of Kentucky
Drip W/FI S/O, 2-1/2"	195118	Columbia Gas of Kentucky
Drip W/FI S/O, 3"	195121	Columbia Gas of Kentucky
Drip W/FI S/O, 3-1/2"	195125	Columbia Gas of Kentucky
Drip W/FI S/O, 3-1/4"	195124	Columbia Gas of Kentucky
Drip W/FI S/O, 4"	195126	Columbia Gas of Kentucky
Drip W/FI S/O, 4-1/2"	195127	Columbia Gas of Kentucky
Drip W/FI S/O, 4-7/8"	195129	Columbia Gas of Kentucky
Drip W/FI S/O, 5"	195130	Columbia Gas of Kentucky
Drip W/FI S/O, 5-1/2"	195133	Columbia Gas of Kentucky
Drip W/FI S/O, 5-3/16"	195131	Columbia Gas of Kentucky
Drip W/FI S/O, 5-5/8"	195134	Columbia Gas of Kentucky
Drip W/FI S/O, 6"	195136	Columbia Gas of Kentucky
Drip W/FI S/O, 6-1/4"	195170	Columbia Gas of Kentucky
Drip W/FI S/O, 6-5/8"	195137	Columbia Gas of Kentucky
Drip W/FI S/O, 7"	195138	Columbia Gas of Kentucky
Drip W/FI S/O, 7-5/8"	195139	Columbia Gas of Kentucky
Drip W/FI S/O, 8"	195140	Columbia Gas of Kentucky
Drip W/FI S/O, 8-5/8"	195142	Columbia Gas of Kentucky
Drip W/FI S/O, 10"	195145	Columbia Gas of Kentucky
Drip W/FI S/O, 10-5/8"	195146	Columbia Gas of Kentucky
Drip W/FI S/O, 11"	195148	Columbia Gas of Kentucky
Drip W/FI S/O, 12"	195150	Columbia Gas of Kentucky



<u>retire_unit</u>	<u>external_retire_unit</u>	<u>company</u>
Drip W/FI S/O, 13-3/8"	195152	Columbia Gas of Kentucky
Drip W/FI S/O, 14"	195154	Columbia Gas of Kentucky
Drip W/FI S/O, 16"	195156	Columbia Gas of Kentucky
Drip W/FI S/O, 18"	195157	Columbia Gas of Kentucky
Drip W/FI S/O, 20"	195158	Columbia Gas of Kentucky
Drip W/FI S/O, 24"	195160	Columbia Gas of Kentucky
Drip W/FI S/O, 36"	195166	Columbia Gas of Kentucky
Drip, 3/4"	195008	Columbia Gas of Kentucky
Drip, 1"	195010	Columbia Gas of Kentucky
Drip, 1-1/4"	195012	Columbia Gas of Kentucky
Drip, 2"	195016	Columbia Gas of Kentucky
Drip, 3"	195021	Columbia Gas of Kentucky
Drip, 3-1/2"	195025	Columbia Gas of Kentucky
Drip, 3-1/4"	195024	Columbia Gas of Kentucky
Drip, 4"	195026	Columbia Gas of Kentucky
Drip, 4-1/2"	195027	Columbia Gas of Kentucky
Drip, 4-7/8"	195029	Columbia Gas of Kentucky
Drip, 5"	195030	Columbia Gas of Kentucky
Drip, 5-1/2"	195033	Columbia Gas of Kentucky
Drip, 5-3/16"	195031	Columbia Gas of Kentucky
Drip, 5-5/8"	195034	Columbia Gas of Kentucky
Drip, 6"	195036	Columbia Gas of Kentucky
Drip, 6-1/4"	195070	Columbia Gas of Kentucky
Drip, 6-5/8"	195037	Columbia Gas of Kentucky
Drip, 7"	195038	Columbia Gas of Kentucky
Drip, 7-5/8"	195039	Columbia Gas of Kentucky
Drip, 8"	195040	Columbia Gas of Kentucky
Drip, 8-5/8"	195042	Columbia Gas of Kentucky
Drip, 10"	195045	Columbia Gas of Kentucky
Drip, 10-5/8"	195046	Columbia Gas of Kentucky
Drip, 11"	195048	Columbia Gas of Kentucky
Drip, 12"	195050	Columbia Gas of Kentucky
Drip, 13-3/8"	195052	Columbia Gas of Kentucky
Drip, 14"	195054	Columbia Gas of Kentucky
Drip, 16"	195056	Columbia Gas of Kentucky
Drip, 18"	195057	Columbia Gas of Kentucky
Drip, 20"	195058	Columbia Gas of Kentucky
Drip, 24"	195060	Columbia Gas of Kentucky
Drip, 36"	195066	Columbia Gas of Kentucky
Driveway	198100	Columbia Gas of Kentucky
Dryer Air Or Gas	208000	Columbia Gas of Kentucky
Dryer Automatic	420295	Columbia Gas of Kentucky
Dynamometer	810276	Columbia Gas of Kentucky
E/Eq Analog Test	212001	Columbia Gas of Kentucky
E/Eq Component Test	212003	Columbia Gas of Kentucky
E/Eq Digital	212004	Columbia Gas of Kentucky
E/Eq Frequency Meas	212005	Columbia Gas of Kentucky
E/Eq Meters,General	212006	Columbia Gas of Kentucky
E/Eq Osc/Audio Test	212007	Columbia Gas of Kentucky
E/Eq Osc/Hi Frq Test	212008	Columbia Gas of Kentucky
E/Eq Oscilloscopes	212009	Columbia Gas of Kentucky
E/Eq Power Measuring	212010	Columbia Gas of Kentucky
E/Eq Recording Test	212011	Columbia Gas of Kentucky

<u>retire_unit</u>	<u>external_retire_unit</u>	<u>company</u>
E/Eq Transmissn Test	212012	Columbia Gas of Kentucky
Echometer	355187	Columbia Gas of Kentucky
Elec Energy Monitor	420305	Columbia Gas of Kentucky
Elec Pwr Cont Circts	109050	Columbia Gas of Kentucky
Elec Welder 300 Amp	295630	Columbia Gas of Kentucky
Electric Motor (Pm)	201300	Columbia Gas of Kentucky
Electric Repair Equipment	212013	Columbia Gas of Kentucky
Electric Welder	295600	Columbia Gas of Kentucky
Electrical Power Circuits	211000	Columbia Gas of Kentucky
Electrnc Msrng Devic	810278	Columbia Gas of Kentucky
Electro Scanner Equipment	262265	Columbia Gas of Kentucky
Elevator	214000	Columbia Gas of Kentucky
Elevator Portable	810280	Columbia Gas of Kentucky
Emco 10	416100	Columbia Gas of Kentucky
Emco Or Rockwell 0	416772	Columbia Gas of Kentucky
Emco Or Rockwell 00/150	416768	Columbia Gas of Kentucky
Emco Or Rockwell 1	416776	Columbia Gas of Kentucky
Emco Or Rockwell 2	416780	Columbia Gas of Kentucky
Emco Or Rockwell 25	416784	Columbia Gas of Kentucky
Emco Or Rockwell 3	416788	Columbia Gas of Kentucky
Emco Or Rockwell 4	416792	Columbia Gas of Kentucky
Emco Or Rockwell 45	416796	Columbia Gas of Kentucky
Emco Or Rockwell 5	416800	Columbia Gas of Kentucky
Emergency Light Unit	215000	Columbia Gas of Kentucky
Enclosures	216000	Columbia Gas of Kentucky
Endorser Check	262280	Columbia Gas of Kentucky
Engravograph	262285	Columbia Gas of Kentucky
Enlarger	420310	Columbia Gas of Kentucky
Equipmeter T-27 : 416837	416837	Columbia Gas of Kentucky
Equipmeter T-57 : 416841	416841	Columbia Gas of Kentucky
Equipment Rack Telecomm	219000	Columbia Gas of Kentucky
Facsimile-Telecom	227000	Columbia Gas of Kentucky
Faultfinder	355195	Columbia Gas of Kentucky
Fence	237000	Columbia Gas of Kentucky
Ff Sys Dry Chemical	248300	Columbia Gas of Kentucky
Fiber Optic Repeater	955500	Columbia Gas of Kentucky
Filter - Telecomm	238000	Columbia Gas of Kentucky
Fire Escape System	243000	Columbia Gas of Kentucky
Fire Fight Sys/Halon	248400	Columbia Gas of Kentucky
Fire Fight Sys/Water	248500	Columbia Gas of Kentucky
Fire Protection Equipment	246400	Columbia Gas of Kentucky
Fire Protection System	248100	Columbia Gas of Kentucky
Fire Sprinkling System	248200	Columbia Gas of Kentucky
Flaw Det Ultrasonic	810294	Columbia Gas of Kentucky
Flexowriter	120005	Columbia Gas of Kentucky
Floor Machine	262315	Columbia Gas of Kentucky
Fold/Insert Mach	262320	Columbia Gas of Kentucky
Fork Lift	810304	Columbia Gas of Kentucky
Foundation, Equipment	250000	Columbia Gas of Kentucky
Fractometer Recorder	355225	Columbia Gas of Kentucky
Franchises & Con Ltd	256200	Columbia Gas of Kentucky
Franchises & Con Per	256100	Columbia Gas of Kentucky
Freezer	420340	Columbia Gas of Kentucky

<u>retire_unit</u>	<u>external_retire_unit</u>	<u>company</u>
Front End Processor	120015	Columbia Gas of Kentucky
Fryer	420360	Columbia Gas of Kentucky
Fst/Tme-Fil Con Pnls	109030	Columbia Gas of Kentucky
Full Right Of Way	361210	Columbia Gas of Kentucky
Furnace (Blast)	810312	Columbia Gas of Kentucky
Fuse Unit - Telecomm	264000	Columbia Gas of Kentucky
Gas Cleaner Hor, 2"	270116	Columbia Gas of Kentucky
Gas Cleaner Hor, 2-1/2"	270118	Columbia Gas of Kentucky
Gas Cleaner Hor, 3"	270121	Columbia Gas of Kentucky
Gas Cleaner Hor, 3-1/2"	270125	Columbia Gas of Kentucky
Gas Cleaner Hor, 3-1/4"	270124	Columbia Gas of Kentucky
Gas Cleaner Hor, 4"	270126	Columbia Gas of Kentucky
Gas Cleaner Hor, 4-1/2"	270127	Columbia Gas of Kentucky
Gas Cleaner Hor, 4-7/8"	270129	Columbia Gas of Kentucky
Gas Cleaner Hor, 5"	270130	Columbia Gas of Kentucky
Gas Cleaner Hor, 5-1/2"	270133	Columbia Gas of Kentucky
Gas Cleaner Hor, 5-3/16"	270131	Columbia Gas of Kentucky
Gas Cleaner Hor, 5-5/8"	270134	Columbia Gas of Kentucky
Gas Cleaner Hor, 6"	270136	Columbia Gas of Kentucky
Gas Cleaner Hor, 6-1/4"	270170	Columbia Gas of Kentucky
Gas Cleaner Hor, 6-5/8"	270137	Columbia Gas of Kentucky
Gas Cleaner Hor, 7"	270138	Columbia Gas of Kentucky
Gas Cleaner Hor, 7-5/8"	270139	Columbia Gas of Kentucky
Gas Cleaner Hor, 8"	270140	Columbia Gas of Kentucky
Gas Cleaner Hor, 8-5/8"	270142	Columbia Gas of Kentucky
Gas Cleaner Hor, 10"	270145	Columbia Gas of Kentucky
Gas Cleaner Hor, 10-5/8"	270146	Columbia Gas of Kentucky
Gas Cleaner Hor, 11"	270148	Columbia Gas of Kentucky
Gas Cleaner Hor, 12"	270150	Columbia Gas of Kentucky
Gas Cleaner Hor, 13-3/8"	270152	Columbia Gas of Kentucky
Gas Cleaner Hor, 14"	270154	Columbia Gas of Kentucky
Gas Cleaner Hor, 16"	270156	Columbia Gas of Kentucky
Gas Cleaner Hor, 18"	270157	Columbia Gas of Kentucky
Gas Cleaner Hor, 20"	270158	Columbia Gas of Kentucky
Gas Cleaner Hor, 24"	270160	Columbia Gas of Kentucky
Gas Cleaner Hor, 36"	270166	Columbia Gas of Kentucky
Gas Cleaner Hor, 48"	270168	Columbia Gas of Kentucky
Gas Cleaner Hor, 54"	270175	Columbia Gas of Kentucky
Gas Cleaner Hor, 56"	270176	Columbia Gas of Kentucky
Gas Cleaner Hor, 58"	270177	Columbia Gas of Kentucky
Gas Cleaner Hor, 60"	270178	Columbia Gas of Kentucky
Gas Cleaner Hor, 62"	270179	Columbia Gas of Kentucky
Gas Cleaner Hor, 64"	270180	Columbia Gas of Kentucky
Gas Cleaner Hor, 66"	270181	Columbia Gas of Kentucky
Gas Cleaner Hor, 68"	270182	Columbia Gas of Kentucky
Gas Cleaner Hor, 70"	270183	Columbia Gas of Kentucky
Gas Cleaner Sph, 2"	270216	Columbia Gas of Kentucky
Gas Cleaner Sph, 2-1/2"	270218	Columbia Gas of Kentucky
Gas Cleaner Sph, 3"	270221	Columbia Gas of Kentucky
Gas Cleaner Sph, 3-1/2"	270225	Columbia Gas of Kentucky
Gas Cleaner Sph, 3-1/4"	270224	Columbia Gas of Kentucky
Gas Cleaner Sph, 4"	270226	Columbia Gas of Kentucky
Gas Cleaner Sph, 4-1/2"	270227	Columbia Gas of Kentucky

<u>retire_unit</u>	<u>external_retire_unit</u>	<u>company</u>
Gas Cleaner Sph, 4-7/8"	270229	Columbia Gas of Kentucky
Gas Cleaner Sph, 5"	270230	Columbia Gas of Kentucky
Gas Cleaner Sph, 5-1/2"	270233	Columbia Gas of Kentucky
Gas Cleaner Sph, 5-3/16"	270231	Columbia Gas of Kentucky
Gas Cleaner Sph, 5-5/8"	270234	Columbia Gas of Kentucky
Gas Cleaner Sph, 6"	270236	Columbia Gas of Kentucky
Gas Cleaner Sph, 6-1/4"	270270	Columbia Gas of Kentucky
Gas Cleaner Sph, 6-5/8"	270237	Columbia Gas of Kentucky
Gas Cleaner Sph, 7"	270238	Columbia Gas of Kentucky
Gas Cleaner Sph, 7-5/8"	270239	Columbia Gas of Kentucky
Gas Cleaner Sph, 8"	270240	Columbia Gas of Kentucky
Gas Cleaner Sph, 8-5/8"	270242	Columbia Gas of Kentucky
Gas Cleaner Sph, 10"	270245	Columbia Gas of Kentucky
Gas Cleaner Sph, 10-5/8"	270246	Columbia Gas of Kentucky
Gas Cleaner Sph, 11"	270248	Columbia Gas of Kentucky
Gas Cleaner Sph, 12"	270250	Columbia Gas of Kentucky
Gas Cleaner Sph, 13-3/8"	270252	Columbia Gas of Kentucky
Gas Cleaner Sph, 14"	270254	Columbia Gas of Kentucky
Gas Cleaner Sph, 16"	270256	Columbia Gas of Kentucky
Gas Cleaner Sph, 18"	270257	Columbia Gas of Kentucky
Gas Cleaner Sph, 20"	270258	Columbia Gas of Kentucky
Gas Cleaner Sph, 24"	270260	Columbia Gas of Kentucky
Gas Cleaner Sph, 36"	270266	Columbia Gas of Kentucky
Gas Cleaner Sph, 54"	270275	Columbia Gas of Kentucky
Gas Cleaner Sph, 56"	270276	Columbia Gas of Kentucky
Gas Cleaner Sph, 58"	270277	Columbia Gas of Kentucky
Gas Cleaner Sph, 60"	270278	Columbia Gas of Kentucky
Gas Cleaner Sph, 62"	270279	Columbia Gas of Kentucky
Gas Cleaner Sph, 64"	270280	Columbia Gas of Kentucky
Gas Cleaner Sph, 66"	270281	Columbia Gas of Kentucky
Gas Cleaner Sph, 68"	270282	Columbia Gas of Kentucky
Gas Cleaner Sph, 70"	270283	Columbia Gas of Kentucky
Gas Cleaner Ver, 2"	270316	Columbia Gas of Kentucky
Gas Cleaner Ver, 2-1/2"	270318	Columbia Gas of Kentucky
Gas Cleaner Ver, 3"	270321	Columbia Gas of Kentucky
Gas Cleaner Ver, 3-1/2"	270325	Columbia Gas of Kentucky
Gas Cleaner Ver, 3-1/4"	270324	Columbia Gas of Kentucky
Gas Cleaner Ver, 4"	270326	Columbia Gas of Kentucky
Gas Cleaner Ver, 4-1/2"	270327	Columbia Gas of Kentucky
Gas Cleaner Ver, 4-7/8"	270329	Columbia Gas of Kentucky
Gas Cleaner Ver, 5"	270330	Columbia Gas of Kentucky
Gas Cleaner Ver, 5-1/2"	270333	Columbia Gas of Kentucky
Gas Cleaner Ver, 5-3/16"	270331	Columbia Gas of Kentucky
Gas Cleaner Ver, 5-5/8"	270334	Columbia Gas of Kentucky
Gas Cleaner Ver, 6"	270336	Columbia Gas of Kentucky
Gas Cleaner Ver, 6-1/4"	270370	Columbia Gas of Kentucky
Gas Cleaner Ver, 6-5/8"	270337	Columbia Gas of Kentucky
Gas Cleaner Ver, 7"	270338	Columbia Gas of Kentucky
Gas Cleaner Ver, 7-5/8"	270339	Columbia Gas of Kentucky
Gas Cleaner Ver, 8"	270340	Columbia Gas of Kentucky
Gas Cleaner Ver, 8-5/8"	270342	Columbia Gas of Kentucky
Gas Cleaner Ver, 10"	270345	Columbia Gas of Kentucky
Gas Cleaner Ver, 10-5/8"	270346	Columbia Gas of Kentucky

<u>retire_unit</u>	<u>external_retire_unit</u>	<u>company</u>
Gas Cleaner Ver, 11"	270348	Columbia Gas of Kentucky
Gas Cleaner Ver, 12"	270350	Columbia Gas of Kentucky
Gas Cleaner Ver, 13-3/8"	270352	Columbia Gas of Kentucky
Gas Cleaner Ver, 14"	270354	Columbia Gas of Kentucky
Gas Cleaner Ver, 15"	270355	Columbia Gas of Kentucky
Gas Cleaner Ver, 16"	270356	Columbia Gas of Kentucky
Gas Cleaner Ver, 18"	270357	Columbia Gas of Kentucky
Gas Cleaner Ver, 20"	270358	Columbia Gas of Kentucky
Gas Cleaner Ver, 24"	270360	Columbia Gas of Kentucky
Gas Cleaner Ver, 26"	270361	Columbia Gas of Kentucky
Gas Cleaner Ver, 30"	270363	Columbia Gas of Kentucky
Gas Cleaner Ver, 32"	270364	Columbia Gas of Kentucky
Gas Cleaner Ver, 34"	270365	Columbia Gas of Kentucky
Gas Cleaner Ver, 36"	270366	Columbia Gas of Kentucky
Gas Cleaner Ver, 42"	270367	Columbia Gas of Kentucky
Gas Cleaner Ver, 54"	270375	Columbia Gas of Kentucky
Gas Cleaner Ver, 56"	270376	Columbia Gas of Kentucky
Gas Cleaner Ver, 58"	270377	Columbia Gas of Kentucky
Gas Cleaner Ver, 60"	270378	Columbia Gas of Kentucky
Gas Cleaner Ver, 62"	270379	Columbia Gas of Kentucky
Gas Cleaner Ver, 64"	270380	Columbia Gas of Kentucky
Gas Cleaner Ver, 66"	270381	Columbia Gas of Kentucky
Gas Cleaner Ver, 68"	270382	Columbia Gas of Kentucky
Gas Cleaner Ver, 70"	270383	Columbia Gas of Kentucky
Gas Detection Equipment	276000	Columbia Gas of Kentucky
Gas Enginer (Pm)	201400	Columbia Gas of Kentucky
Gas Mixing Unit	280000	Columbia Gas of Kentucky
Gas Sampler Cont	286000	Columbia Gas of Kentucky
Gas Stored Ungrd-N/C	287000	Columbia Gas of Kentucky
Gasoline Pump	810320	Columbia Gas of Kentucky
Gate	262325	Columbia Gas of Kentucky
Gauge Portable Test	355245	Columbia Gas of Kentucky
Gauge Tester	420380	Columbia Gas of Kentucky
Gauges, Elec Flo Comp	288400	Columbia Gas of Kentucky
Gauges, Indicating	288100	Columbia Gas of Kentucky
Gauges, Integrating	288200	Columbia Gas of Kentucky
Gauges, Press Stat Ind	288110	Columbia Gas of Kentucky
Gauges, Press Stat Int	288210	Columbia Gas of Kentucky
Gauges, Press Stat Rec	288310	Columbia Gas of Kentucky
Gauges, Press/Temp Ind	288130	Columbia Gas of Kentucky
Gauges, Press/Temp Rec	288330	Columbia Gas of Kentucky
Gauges, Press/Vol Ind	288170	Columbia Gas of Kentucky
Gauges, Press/Vol Rec	288370	Columbia Gas of Kentucky
Gauges, Pv & Temp Ind	288140	Columbia Gas of Kentucky
Gauges, PV & Temp Rec	288340	Columbia Gas of Kentucky
Gauges, PV Time & Temp Int	288250	Columbia Gas of Kentucky
Gauges, PV Time & Temp Rec	288350	Columbia Gas of Kentucky
Gauges, Recording	288300	Columbia Gas of Kentucky
Gauges, Retire February	288320	Columbia Gas of Kentucky
Gen Tool Equip 0	295701	Columbia Gas of Kentucky
Gen/Alt Portable	810332	Columbia Gas of Kentucky
General Computer Equipment	120000	Columbia Gas of Kentucky
General Office Equipment	262000	Columbia Gas of Kentucky

<u>retire_unit</u>	<u>external_retire_unit</u>	<u>company</u>
General Tools & Equipment	810000	Columbia Gas of Kentucky
Generating Unit, Packaged	297000	Columbia Gas of Kentucky
Generator	298000	Columbia Gas of Kentucky
Gravimeter	355250	Columbia Gas of Kentucky
Griffin 5	416122	Columbia Gas of Kentucky
Griffin 10	416124	Columbia Gas of Kentucky
Griffin 20	416128	Columbia Gas of Kentucky
Grill	420420	Columbia Gas of Kentucky
Grinder Bench	810340	Columbia Gas of Kentucky
Grinder Portable	810348	Columbia Gas of Kentucky
Gun Light	420425	Columbia Gas of Kentucky
Gun, Infrared, Heat	355256	Columbia Gas of Kentucky
Hardware Master Unit	120006	Columbia Gas of Kentucky
Header, 2"	309016	Columbia Gas of Kentucky
Header, 2-1/2"	309018	Columbia Gas of Kentucky
Header, 3"	309021	Columbia Gas of Kentucky
Header, 3-1/2"	309025	Columbia Gas of Kentucky
Header, 3-1/4"	309024	Columbia Gas of Kentucky
Header, 4"	309026	Columbia Gas of Kentucky
Header, 4-1/2"	309027	Columbia Gas of Kentucky
Header, 4-7/8"	309029	Columbia Gas of Kentucky
Header, 5"	309030	Columbia Gas of Kentucky
Header, 5-1/2"	309033	Columbia Gas of Kentucky
Header, 5-3/16"	309031	Columbia Gas of Kentucky
Header, 5-5/8"	309034	Columbia Gas of Kentucky
Header, 6"	309036	Columbia Gas of Kentucky
Header, 6-1/4"	309070	Columbia Gas of Kentucky
Header, 6-5/8"	309037	Columbia Gas of Kentucky
Header, 7"	309038	Columbia Gas of Kentucky
Header, 7-5/8"	309039	Columbia Gas of Kentucky
Header, 8"	309040	Columbia Gas of Kentucky
Header, 8-5/8"	309042	Columbia Gas of Kentucky
Header, 10"	309045	Columbia Gas of Kentucky
Header, 10-5/8"	309046	Columbia Gas of Kentucky
Header, 11"	309048	Columbia Gas of Kentucky
Header, 12"	309050	Columbia Gas of Kentucky
Header, 13-3/8"	309052	Columbia Gas of Kentucky
Header, 14"	309054	Columbia Gas of Kentucky
Header, 16"	309056	Columbia Gas of Kentucky
Header, 18"	309057	Columbia Gas of Kentucky
Header, 20"	309058	Columbia Gas of Kentucky
Header, 24"	309060	Columbia Gas of Kentucky
Header, 36"	309066	Columbia Gas of Kentucky
Heat Exch Air/Air	312500	Columbia Gas of Kentucky
Heat Exch Gas/Air	312100	Columbia Gas of Kentucky
Heat Exch Gly/Gly	312200	Columbia Gas of Kentucky
Heat Exch Oil W/A	312300	Columbia Gas of Kentucky
Heat Exch Other	312600	Columbia Gas of Kentucky
Heat Exch Water/Air	312400	Columbia Gas of Kentucky
Heater G/O Catalytic	315200	Columbia Gas of Kentucky
Heater G/O Convec	315100	Columbia Gas of Kentucky
Heater G/O Turbulatr	315300	Columbia Gas of Kentucky
Heater Portable	420440	Columbia Gas of Kentucky

<u>retire_unit</u>	<u>external_retire_unit</u>	<u>company</u>
Heater Space	318000	Columbia Gas of Kentucky
Hoist, Portable	810363	Columbia Gas of Kentucky
Holiday Detector	355260	Columbia Gas of Kentucky
Hood Oven	420450	Columbia Gas of Kentucky
Hopper	810364	Columbia Gas of Kentucky
Hot Water Tank	760500	Columbia Gas of Kentucky
Hydraulic Power Unit	810370	Columbia Gas of Kentucky
Hydraulic Tester	810374	Columbia Gas of Kentucky
Hydraulic Tools	810372	Columbia Gas of Kentucky
Hydrogen Regulator	810376	Columbia Gas of Kentucky
Hydrostatic Test Un	355270	Columbia Gas of Kentucky
Ice Maker	420470	Columbia Gas of Kentucky
Impact Wrench	810382	Columbia Gas of Kentucky
Improvements Leased Property	336000	Columbia Gas of Kentucky
Incinerator Fixed	338000	Columbia Gas of Kentucky
Incinerator Portable	262345	Columbia Gas of Kentucky
Indicator flow press	355165	Columbia Gas of Kentucky
Indicator Std Engine	355290	Columbia Gas of Kentucky
Injector/Feeder	340000	Columbia Gas of Kentucky
Insert Rack	262360	Columbia Gas of Kentucky
Insg Slv-Lvl, 1/4"	345303	Columbia Gas of Kentucky
Insg Slv-Lvl, 1/8"	345301	Columbia Gas of Kentucky
Insg Slv-Lvl, 3/16"	345302	Columbia Gas of Kentucky
Insg Slv-Lvl, 3/4o	345308	Columbia Gas of Kentucky
Insg Slv-Lvl, 3/8"	345305	Columbia Gas of Kentucky
Insg Slv-Lvl, 5/16"	345304	Columbia Gas of Kentucky
Insg Slv-Lvl, 5/8"	345307	Columbia Gas of Kentucky
Insg Slv-Lvl, 1"	345310	Columbia Gas of Kentucky
Insg Slv-Lvl, 1-1/2"	345315	Columbia Gas of Kentucky
Insg Slv-Lvl, 1-1/4"	345312	Columbia Gas of Kentucky
Insg Slv-Lvl, 1-3/8"	345314	Columbia Gas of Kentucky
Insg Slv-Lvl, 2"	345316	Columbia Gas of Kentucky
Insg Slv-Lvl, 2-1/2"	345318	Columbia Gas of Kentucky
Insg Slv-Lvl, 3"	345321	Columbia Gas of Kentucky
Insg Slv-Lvl, 3-1/2"	345325	Columbia Gas of Kentucky
Insg Slv-Lvl, 3-1/4"	345324	Columbia Gas of Kentucky
Insg Slv-Lvl, 4"	345326	Columbia Gas of Kentucky
Insg Slv-Lvl, 4-1/2"	345327	Columbia Gas of Kentucky
Insg Slv-Lvl, 4-7/8"	345329	Columbia Gas of Kentucky
Insg Slv-Lvl, 5"	345330	Columbia Gas of Kentucky
Insg Slv-Lvl, 5-1/2"	345333	Columbia Gas of Kentucky
Insg Slv-Lvl, 5-3/16"	345331	Columbia Gas of Kentucky
Insg Slv-Lvl, 5-5/8"	345334	Columbia Gas of Kentucky
Insg Slv-Lvl, 6"	345336	Columbia Gas of Kentucky
Insg Slv-Lvl, 6-1/4"	345370	Columbia Gas of Kentucky
Insg Slv-Lvl, 6-5/8"	345337	Columbia Gas of Kentucky
Insg Slv-Lvl, 7"	345338	Columbia Gas of Kentucky
Insg Slv-Lvl, 7-5/8"	345339	Columbia Gas of Kentucky
Insg Slv-Lvl, 8"	345340	Columbia Gas of Kentucky
Insg Slv-Lvl, 8-5/8"	345342	Columbia Gas of Kentucky
Insg Slv-Lvl, 10"	345345	Columbia Gas of Kentucky
Insg Slv-Lvl, 10-5/8"	345346	Columbia Gas of Kentucky
Insg Slv-Lvl, 11"	345348	Columbia Gas of Kentucky

<u>retire_unit</u>	<u>external_retire_unit</u>	<u>company</u>
Insg Slv-Lvl, 12"	345350	Columbia Gas of Kentucky
Insg Slv-Lvl, 13-3/8"	345352	Columbia Gas of Kentucky
Insg Slv-Lvl, 14"	345354	Columbia Gas of Kentucky
Insg Slv-Lvl, 16"	345356	Columbia Gas of Kentucky
Insg Slv-Lvl, 18"	345357	Columbia Gas of Kentucky
Insg Slv-Lvl, 20"	345358	Columbia Gas of Kentucky
Insg Slv-Lvl, 24"	345360	Columbia Gas of Kentucky
Insg Slv-Lvl, 36"	345366	Columbia Gas of Kentucky
Insltng Cpln, 1/4"	345103	Columbia Gas of Kentucky
Insltng Cpln, 1/8"	345101	Columbia Gas of Kentucky
Insltng Cpln, 3/16"	345102	Columbia Gas of Kentucky
Insltng Cpln, 3/4o	345108	Columbia Gas of Kentucky
Insltng Cpln, 3/8"	345105	Columbia Gas of Kentucky
Insltng Cpln, 5/16"	345104	Columbia Gas of Kentucky
Insltng Cpln, 5/8"	345107	Columbia Gas of Kentucky
Insltng Cpln, 1"	345110	Columbia Gas of Kentucky
Insltng Cpln, 1-1/2"	345115	Columbia Gas of Kentucky
Insltng Cpln, 1-1/4"	345112	Columbia Gas of Kentucky
Insltng Cpln, 1-3/8"	345114	Columbia Gas of Kentucky
Insltng Cpln, 2"	345116	Columbia Gas of Kentucky
Insltng Cpln, 2-1/2"	345118	Columbia Gas of Kentucky
Insltng Cpln, 3"	345121	Columbia Gas of Kentucky
Insltng Cpln, 3-1/2"	345125	Columbia Gas of Kentucky
Insltng Cpln, 3-1/4"	345124	Columbia Gas of Kentucky
Insltng Cpln, 4"	345126	Columbia Gas of Kentucky
Insltng Cpln, 4-1/2"	345127	Columbia Gas of Kentucky
Insltng Cpln, 4-7/8"	345129	Columbia Gas of Kentucky
Insltng Cpln, 5"	345130	Columbia Gas of Kentucky
Insltng Cpln, 5-1/2"	345133	Columbia Gas of Kentucky
Insltng Cpln, 5-3/16"	345131	Columbia Gas of Kentucky
Insltng Cpln, 5-5/8"	345134	Columbia Gas of Kentucky
Insltng Cpln, 6"	345136	Columbia Gas of Kentucky
Insltng Cpln, 6-1/4"	345170	Columbia Gas of Kentucky
Insltng Cpln, 6-5/8"	345137	Columbia Gas of Kentucky
Insltng Cpln, 7"	345138	Columbia Gas of Kentucky
Insltng Cpln, 7-5/8"	345139	Columbia Gas of Kentucky
Insltng Cpln, 8"	345140	Columbia Gas of Kentucky
Insltng Cpln, 8-5/8"	345142	Columbia Gas of Kentucky
Insltng Cpln, 10"	345145	Columbia Gas of Kentucky
Insltng Cpln, 10-5/8"	345146	Columbia Gas of Kentucky
Insltng Cpln, 11"	345148	Columbia Gas of Kentucky
Insltng Cpln, 12"	345150	Columbia Gas of Kentucky
Insltng Cpln, 13-3/8"	345152	Columbia Gas of Kentucky
Insltng Cpln, 14"	345154	Columbia Gas of Kentucky
Insltng Cpln, 16"	345156	Columbia Gas of Kentucky
Insltng Cpln, 18"	345157	Columbia Gas of Kentucky
Insltng Cpln, 20"	345158	Columbia Gas of Kentucky
Insltng Cpln, 24"	345160	Columbia Gas of Kentucky
Insltng Cpln, 36"	345166	Columbia Gas of Kentucky
Insltng Flng, 1/4"	345503	Columbia Gas of Kentucky
Insltng Flng, 1/8"	345501	Columbia Gas of Kentucky
Insltng Flng, 3/16"	345502	Columbia Gas of Kentucky
Insltng Flng, 3/4o	345508	Columbia Gas of Kentucky



<u>retire_unit</u>	<u>external_retire_unit</u>	<u>company</u>
Insltng Flng, 3/8"	345505	Columbia Gas of Kentucky
Insltng Flng, 5/16"	345504	Columbia Gas of Kentucky
Insltng Flng, 5/8"	345507	Columbia Gas of Kentucky
Insltng Flng, 1"	345510	Columbia Gas of Kentucky
Insltng Flng, 1-1/2"	345515	Columbia Gas of Kentucky
Insltng Flng, 1-1/4"	345512	Columbia Gas of Kentucky
Insltng Flng, 1-3/8"	345514	Columbia Gas of Kentucky
Insltng Flng, 2"	345516	Columbia Gas of Kentucky
Insltng Flng, 2-1/2"	345518	Columbia Gas of Kentucky
Insltng Flng, 3"	345521	Columbia Gas of Kentucky
Insltng Flng, 3-1/2"	345525	Columbia Gas of Kentucky
Insltng Flng, 3-1/4"	345524	Columbia Gas of Kentucky
Insltng Flng, 4"	345526	Columbia Gas of Kentucky
Insltng Flng, 4-1/2"	345527	Columbia Gas of Kentucky
Insltng Flng, 4-7/8"	345529	Columbia Gas of Kentucky
Insltng Flng, 5"	345530	Columbia Gas of Kentucky
Insltng Flng, 5-1/2"	345533	Columbia Gas of Kentucky
Insltng Flng, 5-3/16"	345531	Columbia Gas of Kentucky
Insltng Flng, 5-5/8"	345534	Columbia Gas of Kentucky
Insltng Flng, 6"	345536	Columbia Gas of Kentucky
Insltng Flng, 6-1/4"	345570	Columbia Gas of Kentucky
Insltng Flng, 6-5/8"	345537	Columbia Gas of Kentucky
Insltng Flng, 7"	345538	Columbia Gas of Kentucky
Insltng Flng, 7-5/8"	345539	Columbia Gas of Kentucky
Insltng Flng, 8"	345540	Columbia Gas of Kentucky
Insltng Flng, 8-5/8"	345542	Columbia Gas of Kentucky
Insltng Flng, 10"	345545	Columbia Gas of Kentucky
Insltng Flng, 10-5/8"	345546	Columbia Gas of Kentucky
Insltng Flng, 11"	345548	Columbia Gas of Kentucky
Insltng Flng, 12"	345550	Columbia Gas of Kentucky
Insltng Flng, 13-3/8"	345552	Columbia Gas of Kentucky
Insltng Flng, 14"	345554	Columbia Gas of Kentucky
Insltng Flng, 16"	345556	Columbia Gas of Kentucky
Insltng Flng, 18"	345557	Columbia Gas of Kentucky
Insltng Flng, 20"	345558	Columbia Gas of Kentucky
Insltng Flng, 24"	345560	Columbia Gas of Kentucky
Insltng Flng, 36"	345566	Columbia Gas of Kentucky
Insr-Wld End, 1/4"	345203	Columbia Gas of Kentucky
Insr-Wld End, 1/8"	345201	Columbia Gas of Kentucky
Insr-Wld End, 3/16"	345202	Columbia Gas of Kentucky
Insr-Wld End, 3/4o	345208	Columbia Gas of Kentucky
Insr-Wld End, 3/8"	345205	Columbia Gas of Kentucky
Insr-Wld End, 5/16"	345204	Columbia Gas of Kentucky
Insr-Wld End, 5/8"	345207	Columbia Gas of Kentucky
Insr-Wld End, 1"	345210	Columbia Gas of Kentucky
Insr-Wld End, 1-1/2"	345215	Columbia Gas of Kentucky
Insr-Wld End, 1-1/4"	345212	Columbia Gas of Kentucky
Insr-Wld End, 1-3/8"	345214	Columbia Gas of Kentucky
Insr-Wld End, 2"	345216	Columbia Gas of Kentucky
Insr-Wld End, 2-1/2"	345218	Columbia Gas of Kentucky
Insr-Wld End, 3"	345221	Columbia Gas of Kentucky
Insr-Wld End, 3-1/2"	345225	Columbia Gas of Kentucky
Insr-Wld End, 3-1/4"	345224	Columbia Gas of Kentucky

<u>retire_unit</u>	<u>external retire_unit</u>	<u>company</u>
Insr-Wld End, 4"	345226	Columbia Gas of Kentucky
Insr-Wld End, 4-1/2"	345227	Columbia Gas of Kentucky
Insr-Wld End, 4-7/8"	345229	Columbia Gas of Kentucky
Insr-Wld End, 5"	345230	Columbia Gas of Kentucky
Insr-Wld End, 5-1/2"	345233	Columbia Gas of Kentucky
Insr-Wld End, 5-3/16"	345231	Columbia Gas of Kentucky
Insr-Wld End, 5-5/8"	345234	Columbia Gas of Kentucky
Insr-Wld End, 6"	345236	Columbia Gas of Kentucky
Insr-Wld End, 6-1/4"	345270	Columbia Gas of Kentucky
Insr-Wld End, 6-5/8"	345237	Columbia Gas of Kentucky
Insr-Wld End, 7"	345238	Columbia Gas of Kentucky
Insr-Wld End, 7-5/8"	345239	Columbia Gas of Kentucky
Insr-Wld End, 8"	345240	Columbia Gas of Kentucky
Insr-Wld End, 8-5/8"	345242	Columbia Gas of Kentucky
Insr-Wld End, 10"	345245	Columbia Gas of Kentucky
Insr-Wld End, 10-5/8"	345246	Columbia Gas of Kentucky
Insr-Wld End, 11"	345248	Columbia Gas of Kentucky
Insr-Wld End, 12"	345250	Columbia Gas of Kentucky
Insr-Wld End, 13-3/8"	345252	Columbia Gas of Kentucky
Insr-Wld End, 14"	345254	Columbia Gas of Kentucky
Insr-Wld End, 16"	345256	Columbia Gas of Kentucky
Insr-Wld End, 18"	345257	Columbia Gas of Kentucky
Insr-Wld End, 20"	345258	Columbia Gas of Kentucky
Insr-Wld End, 24"	345260	Columbia Gas of Kentucky
Insr-Wld End, 36"	345266	Columbia Gas of Kentucky
Integrator Chart	262365	Columbia Gas of Kentucky
Interactive Voice Reading	775100	Columbia Gas of Kentucky
Interactive Voice Response Unit	337000	Columbia Gas of Kentucky
Interactive Voice Response Unit		Columbia Gas of Kentucky
Intercom - Telecomm	348000	Columbia Gas of Kentucky
Interrup Current Dc	355300	Columbia Gas of Kentucky
Inverter - Electric	349000	Columbia Gas of Kentucky
Iron No 1	416920	Columbia Gas of Kentucky
Iron No 2	416921	Columbia Gas of Kentucky
Iron No 3	416922	Columbia Gas of Kentucky
Iron No 4	416923	Columbia Gas of Kentucky
Iron No 5	416924	Columbia Gas of Kentucky
Iron No 10	416925	Columbia Gas of Kentucky
Iron No 20	416926	Columbia Gas of Kentucky
Iron No 25	416927	Columbia Gas of Kentucky
Iron No 30	416928	Columbia Gas of Kentucky
Iron No 35	416929	Columbia Gas of Kentucky
Iron No 60	416930	Columbia Gas of Kentucky
Iron No 80	416931	Columbia Gas of Kentucky
Iron No 250	416932	Columbia Gas of Kentucky
Iron No 500	416933	Columbia Gas of Kentucky
Ironcase 10b	416630	Columbia Gas of Kentucky
Ironcase 20b	416634	Columbia Gas of Kentucky
Ironcase 250b	416658	Columbia Gas of Kentucky
Ironcase 25b	416638	Columbia Gas of Kentucky
Ironcase 30b	416642	Columbia Gas of Kentucky
Ironcase 35b	416646	Columbia Gas of Kentucky
Ironcase 500b	416662	Columbia Gas of Kentucky

<u>retire_unit</u>	<u>external_retire_unit</u>	<u>company</u>
Ironcase 5b	416622	Columbia Gas of Kentucky
Ironcase 60b	416650	Columbia Gas of Kentucky
Ironcase 80b	416654	Columbia Gas of Kentucky
Ironcase A	416618	Columbia Gas of Kentucky
Ironclad 1	416672	Columbia Gas of Kentucky
Ironclad 2	416676	Columbia Gas of Kentucky
Ironclad 3	416680	Columbia Gas of Kentucky
Ironclad 4	416684	Columbia Gas of Kentucky
Joiner/Planer	810410	Columbia Gas of Kentucky
Kitchen Home Service	420510	Columbia Gas of Kentucky
Laminator	262400	Columbia Gas of Kentucky
Lancaster 240/250	416870	Columbia Gas of Kentucky
Land Assessments	358300	Columbia Gas of Kentucky
Land Rights	361000	Columbia Gas of Kentucky
Land, Surf & Mineral	358100	Columbia Gas of Kentucky
Land, Surface Only	358200	Columbia Gas of Kentucky
Landscaping	364000	Columbia Gas of Kentucky
Lathe	810418	Columbia Gas of Kentucky
Lawn Sweep Self Prop	810426	Columbia Gas of Kentucky
Lease Acq Cost	858100	Columbia Gas of Kentucky
Leaseholds	370000	Columbia Gas of Kentucky
Lectern	262405	Columbia Gas of Kentucky
Level Engineer'S	810430	Columbia Gas of Kentucky
Lift Hydraulic	810434	Columbia Gas of Kentucky
Lighting Equipment Tower	380000	Columbia Gas of Kentucky
Lighting Outfit Port	810442	Columbia Gas of Kentucky
Limited Right Of Way	361220	Columbia Gas of Kentucky
Loading Facilities	109060	Columbia Gas of Kentucky
Lubricating Equip	810454	Columbia Gas of Kentucky
Mail Opener	262440	Columbia Gas of Kentucky
Mailing Machine	262435	Columbia Gas of Kentucky
Main Unit, Electric Motor	405100	Columbia Gas of Kentucky
Main Unit, Gas Engine	405200	Columbia Gas of Kentucky
Main Unit, Gas Turbine	405300	Columbia Gas of Kentucky
Main Unit, Steam Turbine	405400	Columbia Gas of Kentucky
Major Building Lease	361110	Columbia Gas of Kentucky
Manometer	355320	Columbia Gas of Kentucky
Mapping Machine	262425	Columbia Gas of Kentucky
Maryland 5	416250	Columbia Gas of Kentucky
Maryland 10	416258	Columbia Gas of Kentucky
Maryland 20	416270	Columbia Gas of Kentucky
Maryland 30	416278	Columbia Gas of Kentucky
Master Sta-Telecont	407000	Columbia Gas of Kentucky
Mechanics Tool Cab	810460	Columbia Gas of Kentucky
Meter And Totalizer	408000	Columbia Gas of Kentucky
Meter Inst Insulated	410100	Columbia Gas of Kentucky
Meter Inst Over 2 In	410099	Columbia Gas of Kentucky
Meter Inst Und 2 In	410098	Columbia Gas of Kentucky
Meter Installation	410001	Columbia Gas of Kentucky
Meter Pi	355390	Columbia Gas of Kentucky
Meter Proving Equip	355393	Columbia Gas of Kentucky
Meter Set E/P, 2"	413016	Columbia Gas of Kentucky
Meter Set E/P, 2-1/2"	413018	Columbia Gas of Kentucky

<u>retire_unit</u>	<u>external_retire_unit</u>	<u>company</u>
Meter Set E/P, 3"	413021	Columbia Gas of Kentucky
Meter Set E/P, 3-1/2"	413025	Columbia Gas of Kentucky
Meter Set E/P, 3-1/4"	413024	Columbia Gas of Kentucky
Meter Set E/P, 4"	413026	Columbia Gas of Kentucky
Meter Set E/P, 4-1/2"	413027	Columbia Gas of Kentucky
Meter Set E/P, 4-7/8"	413029	Columbia Gas of Kentucky
Meter Set E/P, 5"	413030	Columbia Gas of Kentucky
Meter Set E/P, 5-1/2"	413033	Columbia Gas of Kentucky
Meter Set E/P, 5-3/16"	413031	Columbia Gas of Kentucky
Meter Set E/P, 5-5/8"	413034	Columbia Gas of Kentucky
Meter Set E/P, 6"	413036	Columbia Gas of Kentucky
Meter Set E/P, 6-1/4"	413070	Columbia Gas of Kentucky
Meter Set E/P, 6-5/8"	413037	Columbia Gas of Kentucky
Meter Set E/P, 7"	413038	Columbia Gas of Kentucky
Meter Set E/P, 7-5/8"	413039	Columbia Gas of Kentucky
Meter Set E/P, 8"	413040	Columbia Gas of Kentucky
Meter Set E/P, 8-5/8"	413042	Columbia Gas of Kentucky
Meter Set E/P, no size specified	413000	Columbia Gas of Kentucky
Meter Set E/P, 10"	413045	Columbia Gas of Kentucky
Meter Set E/P, 10-5/8"	413046	Columbia Gas of Kentucky
Meter Set E/P, 11"	413048	Columbia Gas of Kentucky
Meter Set E/P, 12"	413050	Columbia Gas of Kentucky
Meter Set E/P, 13-3/8"	413052	Columbia Gas of Kentucky
Meter Set E/P, 14"	413054	Columbia Gas of Kentucky
Meter Set E/P, 16"	413056	Columbia Gas of Kentucky
Meter Set E/P, 18"	413057	Columbia Gas of Kentucky
Meter Set E/P, 20"	413058	Columbia Gas of Kentucky
Meter Set E/P, 24"	413060	Columbia Gas of Kentucky
Meter Set E/P, 36"	413066	Columbia Gas of Kentucky
Metric 5	416338	Columbia Gas of Kentucky
Metric 10	416342	Columbia Gas of Kentucky
Metric 20	416346	Columbia Gas of Kentucky
Metric 30	416354	Columbia Gas of Kentucky
Metric 60	416358	Columbia Gas of Kentucky
Metscan Unit	415000	Columbia Gas of Kentucky
Microfilm Equipment	262465	Columbia Gas of Kentucky
Microscope	355445	Columbia Gas of Kentucky
Milling Machine	810470	Columbia Gas of Kentucky
Miscellaneous Lease	361120	Columbia Gas of Kentucky
Mixer Concrete	810474	Columbia Gas of Kentucky
Mobile Unit, Radio	425000	Columbia Gas of Kentucky
Mobile Yard Equip	295982	Columbia Gas of Kentucky
Modem - Telecomm	426000	Columbia Gas of Kentucky
Modular Furniture-Panels	262487	Columbia Gas of Kentucky
Modulator - Telecomm	427000	Columbia Gas of Kentucky
Modulator Air Flow	355460	Columbia Gas of Kentucky
Monitor Un - Telecom	428000	Columbia Gas of Kentucky
Mower Powered Tco On	810485	Columbia Gas of Kentucky
Mower, Riding	810486	Columbia Gas of Kentucky
Mulr Ftg St, 1"	665210	Columbia Gas of Kentucky
Mulr Ftg St, 1-1/2"	665215	Columbia Gas of Kentucky
Mulr Ftg St, 1-1/4"	665212	Columbia Gas of Kentucky
Mulr Ftg St, 1-3/8"	665214	Columbia Gas of Kentucky

<u>retire_unit</u>	<u>external_retire_unit</u>	<u>company</u>
Mulr Ftg St, 2"	665216	Columbia Gas of Kentucky
Mulr Ftg St, 2-1/2"	665218	Columbia Gas of Kentucky
Mulr Ftg St, 3"	665221	Columbia Gas of Kentucky
Mulr Ftg St, 3-1/2"	665225	Columbia Gas of Kentucky
Mulr Ftg St, 3-1/4"	665224	Columbia Gas of Kentucky
Mulr Ftg St, 4"	665226	Columbia Gas of Kentucky
Mulr Ftg St, 4-1/2"	665227	Columbia Gas of Kentucky
Mulr Ftg St, 4-7/8"	665229	Columbia Gas of Kentucky
Mulr Ftg St, 5"	665230	Columbia Gas of Kentucky
Mulr Ftg St, 5-1/2"	665233	Columbia Gas of Kentucky
Mulr Ftg St, 5-3/16"	665231	Columbia Gas of Kentucky
Mulr Ftg St, 5-5/8"	665234	Columbia Gas of Kentucky
Mulr Ftg St, 6"	665236	Columbia Gas of Kentucky
Mulr Ftg St, 6-1/4"	665270	Columbia Gas of Kentucky
Mulr Ftg St, 6-5/8"	665237	Columbia Gas of Kentucky
Mulr Ftg St, 7"	665238	Columbia Gas of Kentucky
Mulr Ftg St, 7-5/8"	665239	Columbia Gas of Kentucky
Mulr Ftg St, 8"	665240	Columbia Gas of Kentucky
Mulr Ftg St, 8-5/8"	665242	Columbia Gas of Kentucky
Mulr Ftg St, 10"	665245	Columbia Gas of Kentucky
Mulr Ftg St, 10-5/8"	665246	Columbia Gas of Kentucky
Mulr Ftg St, 11"	665248	Columbia Gas of Kentucky
Mulr Ftg St, 12"	665250	Columbia Gas of Kentucky
Mulr Ftg St, 13-3/8"	665252	Columbia Gas of Kentucky
Mulr Ftg St, 14"	665254	Columbia Gas of Kentucky
Mulr Ftg St, 16"	665256	Columbia Gas of Kentucky
Mulr Ftg St, 18"	665257	Columbia Gas of Kentucky
Mulr Ftg St, 20"	665258	Columbia Gas of Kentucky
Mulr Ftg St, 24"	665260	Columbia Gas of Kentucky
Mulr Ftg St, 36"	665266	Columbia Gas of Kentucky
Multi-Access Unit	120022	Columbia Gas of Kentucky
Multiplexer	120016	Columbia Gas of Kentucky
National 175a	416833	Columbia Gas of Kentucky
Needle Scaler Kit	810494	Columbia Gas of Kentucky
NGD Lease - 990000	990000	Columbia Gas of Kentucky
Non-Property Unit, 262999	262999	Columbia Gas of Kentucky
Non-Property Unit, 355999	355999	Columbia Gas of Kentucky
Non-Property Unit, 420999	420999	Columbia Gas of Kentucky
Non-Property Unit, 810999	810999	Columbia Gas of Kentucky
Odor Sta, Rural Cust	430100	Columbia Gas of Kentucky
Odorator, Heath S/N 326	355400	Columbia Gas of Kentucky
Odorization Station	430000	Columbia Gas of Kentucky
Odorizer Portable	810498	Columbia Gas of Kentucky
Odormeter	355480	Columbia Gas of Kentucky
Oil Pump, Power Oper	810502	Columbia Gas of Kentucky
Operator Console	120007	Columbia Gas of Kentucky
Orifice Meter Tube, 2"	416972	Columbia Gas of Kentucky
Orifice Meter Tube, 3"	416974	Columbia Gas of Kentucky
Orifice Meter Tube, 4"	416976	Columbia Gas of Kentucky
Orifice Meter Tube, 6"	416978	Columbia Gas of Kentucky
Orifice Meter Tube, 8"	416980	Columbia Gas of Kentucky
Orifice Meter Tube, 10"	416982	Columbia Gas of Kentucky
Orifice Meter Tube, 12"	416984	Columbia Gas of Kentucky

<u>retire_unit</u>	<u>external_retire_unit</u>	<u>company</u>
Orifice Meter Tube, 16"	416986	Columbia Gas of Kentucky
Orifice Meter Tube, 20"	416988	Columbia Gas of Kentucky
Orifice Meter Tube, 24"	416990	Columbia Gas of Kentucky
Organization Costs	435000	Columbia Gas of Kentucky
Orif Set Fab, 2"	414016	Columbia Gas of Kentucky
Orif Set Fab, 3"	414021	Columbia Gas of Kentucky
Orif Set Fab, 4"	414026	Columbia Gas of Kentucky
Orif Set Fab, 6"	414036	Columbia Gas of Kentucky
Orif Set Fab, 8"	414040	Columbia Gas of Kentucky
Orif Set Fab, 10"	414045	Columbia Gas of Kentucky
Orif Set Fab, 12"	414050	Columbia Gas of Kentucky
Orif Set Fab, 16"	414056	Columbia Gas of Kentucky
Orif Set Fab, 20"	414058	Columbia Gas of Kentucky
Orif Set Fab, 24"	414060	Columbia Gas of Kentucky
Other Equipment	295900	Columbia Gas of Kentucky
Oven	420610	Columbia Gas of Kentucky
Oven Stab Welding Rd	810506	Columbia Gas of Kentucky
Over Valve Setting, 2"	900099	Columbia Gas of Kentucky
Overhead Cabinet	262486	Columbia Gas of Kentucky
Oxygen Indicator	810514	Columbia Gas of Kentucky
Oxygen System	810518	Columbia Gas of Kentucky
P C Monitor	116500	Columbia Gas of Kentucky
P/S Oil, Gear Pwd Un	547300	Columbia Gas of Kentucky
P/S Oil, Pumping Rig	547100	Columbia Gas of Kentucky
P/S Oil, Pumping Unit	547200	Columbia Gas of Kentucky
P/S Oil, Subsurf Pump	547400	Columbia Gas of Kentucky
Pa System Portable	420625	Columbia Gas of Kentucky
Pack Machine	262520	Columbia Gas of Kentucky
Packset Radio	437000	Columbia Gas of Kentucky
Paint Spray Outfit	810530	Columbia Gas of Kentucky
Paint Stripping Mach	810534	Columbia Gas of Kentucky
Panel, Control	440200	Columbia Gas of Kentucky
Panel, Electric Powered	443000	Columbia Gas of Kentucky
Panel, Gaugeboard	440100	Columbia Gas of Kentucky
Paper Cutter-Powered	262530	Columbia Gas of Kentucky
Parking Gate	198500	Columbia Gas of Kentucky
Parking Lot	198200	Columbia Gas of Kentucky
Partitions, Floor To Ceiling	445000	Columbia Gas of Kentucky
Passenger Vehicle	450100	Columbia Gas of Kentucky
Paving Roller	810540	Columbia Gas of Kentucky
Peeler	420630	Columbia Gas of Kentucky
Pipe Cut/Bev Mach	810554	Columbia Gas of Kentucky
Pipe Cutter	810546	Columbia Gas of Kentucky
Pipe Locator	810558	Columbia Gas of Kentucky
Pipe Pusher	810562	Columbia Gas of Kentucky
Pipe Sled	810564	Columbia Gas of Kentucky
Pipe Storage Rack	470000	Columbia Gas of Kentucky
Pipe Threading Mach	810566	Columbia Gas of Kentucky
Pipe, Ci Tr, 1/4"	461003	Columbia Gas of Kentucky
Pipe, Ci Tr, 1/8"	461001	Columbia Gas of Kentucky
Pipe, Ci Tr, 3/16"	461002	Columbia Gas of Kentucky
Pipe, Ci Tr, 3/4"	461008	Columbia Gas of Kentucky
Pipe, Ci Tr, 3/8"	461005	Columbia Gas of Kentucky

retire_unit	external_retire_unit	company
Pipe, Ci Tr, 5/16"	461004	Columbia Gas of Kentucky
Pipe, Ci Tr, 5/8"	461007	Columbia Gas of Kentucky
Pipe, Ci Tr, 1"	461010	Columbia Gas of Kentucky
Pipe, Ci Tr, 1-1/2"	461015	Columbia Gas of Kentucky
Pipe, Ci Tr, 1-1/4"	461012	Columbia Gas of Kentucky
Pipe, Ci Tr, 1-3/8"	461014	Columbia Gas of Kentucky
Pipe, Ci Tr, 2"	461016	Columbia Gas of Kentucky
Pipe, Ci Tr, 2-1/2"	461018	Columbia Gas of Kentucky
Pipe, Ci Tr, 3"	461021	Columbia Gas of Kentucky
Pipe, Ci Tr, 3-1/2"	461025	Columbia Gas of Kentucky
Pipe, Ci Tr, 3-1/4"	461024	Columbia Gas of Kentucky
Pipe, Ci Tr, 4"	461026	Columbia Gas of Kentucky
Pipe, Ci Tr, 4-1/2"	461027	Columbia Gas of Kentucky
Pipe, Ci Tr, 4-7/8"	461029	Columbia Gas of Kentucky
Pipe, Ci Tr, 5"	461030	Columbia Gas of Kentucky
Pipe, Ci Tr, 5-1/2"	461033	Columbia Gas of Kentucky
Pipe, Ci Tr, 5-3/16"	461031	Columbia Gas of Kentucky
Pipe, Ci Tr, 5-5/8"	461034	Columbia Gas of Kentucky
Pipe, Ci Tr, 6"	461036	Columbia Gas of Kentucky
Pipe, Ci Tr, 6-1/4"	461070	Columbia Gas of Kentucky
Pipe, Ci Tr, 6-5/8"	461037	Columbia Gas of Kentucky
Pipe, Ci Tr, 7"	461038	Columbia Gas of Kentucky
Pipe, Ci Tr, 7-5/8"	461039	Columbia Gas of Kentucky
Pipe, Ci Tr, 8"	461040	Columbia Gas of Kentucky
Pipe, Ci Tr, 8-5/8"	461042	Columbia Gas of Kentucky
Pipe, Ci Tr, 10"	461045	Columbia Gas of Kentucky
Pipe, Ci Tr, 10-5/8"	461046	Columbia Gas of Kentucky
Pipe, Ci Tr, 11"	461048	Columbia Gas of Kentucky
Pipe, Ci Tr, 12"	461050	Columbia Gas of Kentucky
Pipe, Ci Tr, 13-3/8"	461052	Columbia Gas of Kentucky
Pipe, Ci Tr, 14"	461054	Columbia Gas of Kentucky
Pipe, Ci Tr, 16"	461056	Columbia Gas of Kentucky
Pipe, Ci Tr, 18"	461057	Columbia Gas of Kentucky
Pipe, Ci Tr, 20"	461058	Columbia Gas of Kentucky
Pipe, Ci Tr, 24"	461060	Columbia Gas of Kentucky
Pipe, Ci Tr, 36"	461066	Columbia Gas of Kentucky
Pipe, Ci, 1/4"	461103	Columbia Gas of Kentucky
Pipe, Ci, 1/8"	461101	Columbia Gas of Kentucky
Pipe, Ci, 3/16"	461102	Columbia Gas of Kentucky
Pipe, Ci, 3/4"	461108	Columbia Gas of Kentucky
Pipe, Ci, 3/8"	461105	Columbia Gas of Kentucky
Pipe, Ci, 5/16"	461104	Columbia Gas of Kentucky
Pipe, Ci, 5/8"	461107	Columbia Gas of Kentucky
Pipe, Ci, 1"	461110	Columbia Gas of Kentucky
Pipe, Ci, 1-1/2"	461115	Columbia Gas of Kentucky
Pipe, Ci, 1-1/4"	461112	Columbia Gas of Kentucky
Pipe, Ci, 1-3/8"	461114	Columbia Gas of Kentucky
Pipe, Ci, 2"	461116	Columbia Gas of Kentucky
Pipe, Ci, 2-1/2"	461118	Columbia Gas of Kentucky
Pipe, Ci, 3"	461121	Columbia Gas of Kentucky
Pipe, Ci, 3-1/2"	461125	Columbia Gas of Kentucky
Pipe, Ci, 3-1/4"	461124	Columbia Gas of Kentucky
Pipe, Ci, 4"	461126	Columbia Gas of Kentucky

<u>retire_unit</u>	<u>external_retire_unit</u>	<u>company</u>
Pipe, Ci, 4-1/2"	461127	Columbia Gas of Kentucky
Pipe, Ci, 4-7/8"	461129	Columbia Gas of Kentucky
Pipe, Ci, 5"	461130	Columbia Gas of Kentucky
Pipe, Ci, 5-1/2"	461133	Columbia Gas of Kentucky
Pipe, Ci, 5-3/16"	461131	Columbia Gas of Kentucky
Pipe, Ci, 5-5/8"	461134	Columbia Gas of Kentucky
Pipe, Ci, 6"	461136	Columbia Gas of Kentucky
Pipe, Ci, 6-1/4"	461170	Columbia Gas of Kentucky
Pipe, Ci, 6-5/8"	461137	Columbia Gas of Kentucky
Pipe, Ci, 7"	461138	Columbia Gas of Kentucky
Pipe, Ci, 7-5/8"	461139	Columbia Gas of Kentucky
Pipe, Ci, 8"	461140	Columbia Gas of Kentucky
Pipe, Ci, 8-5/8"	461142	Columbia Gas of Kentucky
Pipe, Ci, 10"	461145	Columbia Gas of Kentucky
Pipe, Ci, 10-5/8"	461146	Columbia Gas of Kentucky
Pipe, Ci, 11"	461148	Columbia Gas of Kentucky
Pipe, Ci, 12"	461150	Columbia Gas of Kentucky
Pipe, Ci, 13-3/8"	461152	Columbia Gas of Kentucky
Pipe, Ci, 14"	461154	Columbia Gas of Kentucky
Pipe, Ci, 16"	461156	Columbia Gas of Kentucky
Pipe, Ci, 18"	461157	Columbia Gas of Kentucky
Pipe, Ci, 20"	461158	Columbia Gas of Kentucky
Pipe, Ci, 24"	461160	Columbia Gas of Kentucky
Pipe, Ci, 30"	461163	Columbia Gas of Kentucky
Pipe, Ci, 36"	461166	Columbia Gas of Kentucky
Pipe, Galv Oth, 1/4"	462303	Columbia Gas of Kentucky
Pipe, Galv Oth, 1/8"	462301	Columbia Gas of Kentucky
Pipe, Galv Oth, 3/16"	462302	Columbia Gas of Kentucky
Pipe, Galv Oth, 3/4"	462308	Columbia Gas of Kentucky
Pipe, Galv Oth, 3/8"	462305	Columbia Gas of Kentucky
Pipe, Galv Oth, 5/16"	462304	Columbia Gas of Kentucky
Pipe, Galv Oth, 5/8"	462307	Columbia Gas of Kentucky
Pipe, Galv Oth, 1 1/2"	462315	Columbia Gas of Kentucky
Pipe, Galv Oth, 1 1/4"	462312	Columbia Gas of Kentucky
Pipe, Galv Oth, 1 1/8"	462311	Columbia Gas of Kentucky
Pipe, Galv Oth, 1 3/8"	462314	Columbia Gas of Kentucky
Pipe, Galv Oth, 1 5/16"	462313	Columbia Gas of Kentucky
Pipe, Galv Oth, 1"	462310	Columbia Gas of Kentucky
Pipe, Galv Oth, 2 1/2"	462318	Columbia Gas of Kentucky
Pipe, Galv Oth, 2 1/4"	462317	Columbia Gas of Kentucky
Pipe, Galv Oth, 2 5/8"	462320	Columbia Gas of Kentucky
Pipe, Galv Oth, 2 9/16"	462319	Columbia Gas of Kentucky
Pipe, Galv Oth, 2"	462316	Columbia Gas of Kentucky
Pipe, Galv Oth, 3 1/16"	462322	Columbia Gas of Kentucky
Pipe, Galv Oth, 3 1/2"	462325	Columbia Gas of Kentucky
Pipe, Galv Oth, 3 1/4"	462324	Columbia Gas of Kentucky
Pipe, Galv Oth, 3 1/8"	462323	Columbia Gas of Kentucky
Pipe, Galv Oth, 3"	462321	Columbia Gas of Kentucky
Pipe, Galv Oth, 4 1/2"	462327	Columbia Gas of Kentucky
Pipe, Galv Oth, 4 3/4"	462328	Columbia Gas of Kentucky
Pipe, Galv Oth, 4 7/8"	462329	Columbia Gas of Kentucky
Pipe, Galv Oth, 4"	462326	Columbia Gas of Kentucky
Pipe, Galv Oth, 5 1/2"	462333	Columbia Gas of Kentucky



<u>retire_unit</u>	<u>external_retire_unit</u>	<u>company</u>
Pipe, Galv Oth, 5 1/4"	462332	Columbia Gas of Kentucky
Pipe, Galv Oth, 5 3/16"	462331	Columbia Gas of Kentucky
Pipe, Galv Oth, 5 3/4"	462335	Columbia Gas of Kentucky
Pipe, Galv Oth, 5 5/8"	462334	Columbia Gas of Kentucky
Pipe, Galv Oth, 5"	462330	Columbia Gas of Kentucky
Pipe, Galv Oth, 6 1/4"	462370	Columbia Gas of Kentucky
Pipe, Galv Oth, 6 5/8"	462337	Columbia Gas of Kentucky
Pipe, Galv Oth, 6"	462336	Columbia Gas of Kentucky
Pipe, Galv Oth, 7 5/8"	462339	Columbia Gas of Kentucky
Pipe, Galv Oth, 7"	462338	Columbia Gas of Kentucky
Pipe, Galv Oth, 8 1/4"	462341	Columbia Gas of Kentucky
Pipe, Galv Oth, 8 5/8"	462342	Columbia Gas of Kentucky
Pipe, Galv Oth, 8"	462340	Columbia Gas of Kentucky
Pipe, Galv Oth, 9 5/8"	462344	Columbia Gas of Kentucky
Pipe, Galv Oth, 10 3/4"	462347	Columbia Gas of Kentucky
Pipe, Galv Oth, 10 5/8"	462346	Columbia Gas of Kentucky
Pipe, Galv Oth, 10"	462345	Columbia Gas of Kentucky
Pipe, Galv Oth, 11 5/8"	462349	Columbia Gas of Kentucky
Pipe, Galv Oth, 11"	462348	Columbia Gas of Kentucky
Pipe, Galv Oth, 12 1/2"	462351	Columbia Gas of Kentucky
Pipe, Galv Oth, 12 5/8"	462371	Columbia Gas of Kentucky
Pipe, Galv Oth, 12"	462350	Columbia Gas of Kentucky
Pipe, Galv Oth, 13 1/2"	462353	Columbia Gas of Kentucky
Pipe, Galv Oth, 13 3/8"	462352	Columbia Gas of Kentucky
Pipe, Galv Oth, 14"	462354	Columbia Gas of Kentucky
Pipe, Galv Oth, 16"	462356	Columbia Gas of Kentucky
Pipe, Galv Oth, 18"	462357	Columbia Gas of Kentucky
Pipe, Galv Oth, 20"	462358	Columbia Gas of Kentucky
Pipe, Galv Oth, 24"	462360	Columbia Gas of Kentucky
Pipe, Galv Oth, 36"	462366	Columbia Gas of Kentucky
Pipe, Galv Pe, 1/4"	462103	Columbia Gas of Kentucky
Pipe, Galv Pe, 1/8"	462101	Columbia Gas of Kentucky
Pipe, Galv Pe, 3/16"	462102	Columbia Gas of Kentucky
Pipe, Galv Pe, 3/4"	462108	Columbia Gas of Kentucky
Pipe, Galv Pe, 3/8"	462105	Columbia Gas of Kentucky
Pipe, Galv Pe, 5/16"	462104	Columbia Gas of Kentucky
Pipe, Galv Pe, 5/8"	462107	Columbia Gas of Kentucky
Pipe, Galv Pe, 1 1/2"	462115	Columbia Gas of Kentucky
Pipe, Galv Pe, 1 1/4"	462112	Columbia Gas of Kentucky
Pipe, Galv Pe, 1 1/8"	462111	Columbia Gas of Kentucky
Pipe, Galv Pe, 1 3/8"	462114	Columbia Gas of Kentucky
Pipe, Galv Pe, 1 5/16"	462113	Columbia Gas of Kentucky
Pipe, Galv Pe, 1"	462110	Columbia Gas of Kentucky
Pipe, Galv Pe, 2 1/2"	462118	Columbia Gas of Kentucky
Pipe, Galv Pe, 2 1/4"	462117	Columbia Gas of Kentucky
Pipe, Galv Pe, 2 5/8"	462120	Columbia Gas of Kentucky
Pipe, Galv Pe, 2 9/16"	462119	Columbia Gas of Kentucky
Pipe, Galv Pe, 2"	462116	Columbia Gas of Kentucky
Pipe, Galv Pe, 3 1/16"	462122	Columbia Gas of Kentucky
Pipe, Galv Pe, 3 1/2"	462125	Columbia Gas of Kentucky
Pipe, Galv Pe, 3 1/4"	462124	Columbia Gas of Kentucky
Pipe, Galv Pe, 3 1/8"	462123	Columbia Gas of Kentucky
Pipe, Galv Pe, 3"	462121	Columbia Gas of Kentucky

<u>retire_unit</u>	<u>external_retire_unit</u>	<u>company</u>
Pipe, Galv Pe, 4 1/2"	462127	Columbia Gas of Kentucky
Pipe, Galv Pe, 4 3/4"	462128	Columbia Gas of Kentucky
Pipe, Galv Pe, 4 7/8"	462129	Columbia Gas of Kentucky
Pipe, Galv Pe, 4"	462126	Columbia Gas of Kentucky
Pipe, Galv Pe, 5 1/2"	462133	Columbia Gas of Kentucky
Pipe, Galv Pe, 5 1/4"	462132	Columbia Gas of Kentucky
Pipe, Galv Pe, 5 3/16"	462131	Columbia Gas of Kentucky
Pipe, Galv Pe, 5 3/4"	462135	Columbia Gas of Kentucky
Pipe, Galv Pe, 5 5/8"	462134	Columbia Gas of Kentucky
Pipe, Galv Pe, 5"	462130	Columbia Gas of Kentucky
Pipe, Galv Pe, 6 1/4"	462170	Columbia Gas of Kentucky
Pipe, Galv Pe, 6 5/8"	462137	Columbia Gas of Kentucky
Pipe, Galv Pe, 6"	462136	Columbia Gas of Kentucky
Pipe, Galv Pe, 7 5/8"	462139	Columbia Gas of Kentucky
Pipe, Galv Pe, 7"	462138	Columbia Gas of Kentucky
Pipe, Galv Pe, 8 1/4"	462141	Columbia Gas of Kentucky
Pipe, Galv Pe, 8 5/8"	462142	Columbia Gas of Kentucky
Pipe, Galv Pe, 8"	462140	Columbia Gas of Kentucky
Pipe, Galv Pe, 9 5/8"	462144	Columbia Gas of Kentucky
Pipe, Galv Pe, 10 3/4"	462147	Columbia Gas of Kentucky
Pipe, Galv Pe, 10 5/8"	462146	Columbia Gas of Kentucky
Pipe, Galv Pe, 10"	462145	Columbia Gas of Kentucky
Pipe, Galv Pe, 11 5/8"	462149	Columbia Gas of Kentucky
Pipe, Galv Pe, 11"	462148	Columbia Gas of Kentucky
Pipe, Galv Pe, 12 1/2"	462151	Columbia Gas of Kentucky
Pipe, Galv Pe, 12 5/8"	462171	Columbia Gas of Kentucky
Pipe, Galv Pe, 12"	462150	Columbia Gas of Kentucky
Pipe, Galv Pe, 13 1/2"	462153	Columbia Gas of Kentucky
Pipe, Galv Pe, 13 3/8"	462152	Columbia Gas of Kentucky
Pipe, Galv Pe, 14"	462154	Columbia Gas of Kentucky
Pipe, Galv Pe, 16"	462156	Columbia Gas of Kentucky
Pipe, Galv Pe, 18"	462157	Columbia Gas of Kentucky
Pipe, Galv Pe, 20"	462158	Columbia Gas of Kentucky
Pipe, Galv Pe, 24"	462160	Columbia Gas of Kentucky
Pipe, Galv Pe, 36"	462166	Columbia Gas of Kentucky
Pipe, Galv Sc, 1/4"	462003	Columbia Gas of Kentucky
Pipe, Galv Sc, 1/8"	462001	Columbia Gas of Kentucky
Pipe, Galv Sc, 3/16"	462002	Columbia Gas of Kentucky
Pipe, Galv Sc, 3/4"	462008	Columbia Gas of Kentucky
Pipe, Galv Sc, 3/8"	462005	Columbia Gas of Kentucky
Pipe, Galv Sc, 5/16"	462004	Columbia Gas of Kentucky
Pipe, Galv Sc, 5/8"	462007	Columbia Gas of Kentucky
Pipe, Galv Sc, 1 1/2"	462015	Columbia Gas of Kentucky
Pipe, Galv Sc, 1 1/4"	462012	Columbia Gas of Kentucky
Pipe, Galv Sc, 1 1/8"	462011	Columbia Gas of Kentucky
Pipe, Galv Sc, 1 3/8"	462014	Columbia Gas of Kentucky
Pipe, Galv Sc, 1 5/16"	462013	Columbia Gas of Kentucky
Pipe, Galv Sc, 1"	462010	Columbia Gas of Kentucky
Pipe, Galv Sc, 2 1/2"	462018	Columbia Gas of Kentucky
Pipe, Galv Sc, 2 1/4"	462017	Columbia Gas of Kentucky
Pipe, Galv Sc, 2 5/8"	462020	Columbia Gas of Kentucky
Pipe, Galv Sc, 2 9/16"	462019	Columbia Gas of Kentucky
Pipe, Galv Sc, 2"	462016	Columbia Gas of Kentucky

retire_unit	external_retire_unit	company
Pipe, Galv Sc, 3 1/16"	462022	Columbia Gas of Kentucky
Pipe, Galv Sc, 3 1/2"	462025	Columbia Gas of Kentucky
Pipe, Galv Sc, 3 1/4"	462024	Columbia Gas of Kentucky
Pipe, Galv Sc, 3 1/8"	462023	Columbia Gas of Kentucky
Pipe, Galv Sc, 3"	462021	Columbia Gas of Kentucky
Pipe, Galv Sc, 4 1/2"	462027	Columbia Gas of Kentucky
Pipe, Galv Sc, 4 3/4"	462028	Columbia Gas of Kentucky
Pipe, Galv Sc, 4 7/8"	462029	Columbia Gas of Kentucky
Pipe, Galv Sc, 4"	462026	Columbia Gas of Kentucky
Pipe, Galv Sc, 5 1/2"	462033	Columbia Gas of Kentucky
Pipe, Galv Sc, 5 1/4"	462032	Columbia Gas of Kentucky
Pipe, Galv Sc, 5 3/16"	462031	Columbia Gas of Kentucky
Pipe, Galv Sc, 5 3/4"	462035	Columbia Gas of Kentucky
Pipe, Galv Sc, 5 5/8"	462034	Columbia Gas of Kentucky
Pipe, Galv Sc, 5"	462030	Columbia Gas of Kentucky
Pipe, Galv Sc, 6 1/4"	462070	Columbia Gas of Kentucky
Pipe, Galv Sc, 6 5/8"	462037	Columbia Gas of Kentucky
Pipe, Galv Sc, 6"	462036	Columbia Gas of Kentucky
Pipe, Galv Sc, 7 5/8"	462039	Columbia Gas of Kentucky
Pipe, Galv Sc, 7"	462038	Columbia Gas of Kentucky
Pipe, Galv Sc, 8 1/4"	462041	Columbia Gas of Kentucky
Pipe, Galv Sc, 8 5/8"	462042	Columbia Gas of Kentucky
Pipe, Galv Sc, 8"	462040	Columbia Gas of Kentucky
Pipe, Galv Sc, 9 5/8"	462044	Columbia Gas of Kentucky
Pipe, Galv Sc, 10 3/4"	462047	Columbia Gas of Kentucky
Pipe, Galv Sc, 10 5/8"	462046	Columbia Gas of Kentucky
Pipe, Galv Sc, 10"	462045	Columbia Gas of Kentucky
Pipe, Galv Sc, 11 5/8"	462049	Columbia Gas of Kentucky
Pipe, Galv Sc, 11"	462048	Columbia Gas of Kentucky
Pipe, Galv Sc, 12 1/2"	462051	Columbia Gas of Kentucky
Pipe, Galv Sc, 12 5/8"	462071	Columbia Gas of Kentucky
Pipe, Galv Sc, 12"	462050	Columbia Gas of Kentucky
Pipe, Galv Sc, 13 1/2"	462053	Columbia Gas of Kentucky
Pipe, Galv Sc, 13 3/8"	462052	Columbia Gas of Kentucky
Pipe, Galv Sc, 14"	462054	Columbia Gas of Kentucky
Pipe, Galv Sc, 16"	462056	Columbia Gas of Kentucky
Pipe, Galv Sc, 18"	462057	Columbia Gas of Kentucky
Pipe, Galv Sc, 20"	462058	Columbia Gas of Kentucky
Pipe, Galv Sc, 24"	462060	Columbia Gas of Kentucky
Pipe, Galv Sc, 36"	462066	Columbia Gas of Kentucky
Pipe, Galv Wld, 1/4"	462203	Columbia Gas of Kentucky
Pipe, Galv Wld, 1/8"	462201	Columbia Gas of Kentucky
Pipe, Galv Wld, 3/16"	462202	Columbia Gas of Kentucky
Pipe, Galv Wld, 3/4"	462208	Columbia Gas of Kentucky
Pipe, Galv Wld, 3/8"	462205	Columbia Gas of Kentucky
Pipe, Galv Wld, 5/16"	462204	Columbia Gas of Kentucky
Pipe, Galv Wld, 5/8"	462207	Columbia Gas of Kentucky
Pipe, Galv Wld, 1 1/2"	462215	Columbia Gas of Kentucky
Pipe, Galv Wld, 1 1/4"	462212	Columbia Gas of Kentucky
Pipe, Galv Wld, 1 1/8"	462211	Columbia Gas of Kentucky
Pipe, Galv Wld, 1 3/8"	462214	Columbia Gas of Kentucky
Pipe, Galv Wld, 1 5/16"	462213	Columbia Gas of Kentucky
Pipe, Galv Wld, 1"	462210	Columbia Gas of Kentucky

retire_unit	external_retire_unit	company
Pipe, Galv Wld, 2 1/2"	462218	Columbia Gas of Kentucky
Pipe, Galv Wld, 2 1/4"	462217	Columbia Gas of Kentucky
Pipe, Galv Wld, 2 5/8"	462220	Columbia Gas of Kentucky
Pipe, Galv Wld, 2 9/16"	462219	Columbia Gas of Kentucky
Pipe, Galv Wld, 2"	462216	Columbia Gas of Kentucky
Pipe, Galv Wld, 3 1/16"	462222	Columbia Gas of Kentucky
Pipe, Galv Wld, 3 1/2"	462225	Columbia Gas of Kentucky
Pipe, Galv Wld, 3 1/4"	462224	Columbia Gas of Kentucky
Pipe, Galv Wld, 3 1/8"	462223	Columbia Gas of Kentucky
Pipe, Galv Wld, 3"	462221	Columbia Gas of Kentucky
Pipe, Galv Wld, 4 1/2"	462227	Columbia Gas of Kentucky
Pipe, Galv Wld, 4 3/4"	462228	Columbia Gas of Kentucky
Pipe, Galv Wld, 4 7/8"	462229	Columbia Gas of Kentucky
Pipe, Galv Wld, 4"	462226	Columbia Gas of Kentucky
Pipe, Galv Wld, 5 1/2"	462233	Columbia Gas of Kentucky
Pipe, Galv Wld, 5 1/4"	462232	Columbia Gas of Kentucky
Pipe, Galv Wld, 5 3/16"	462231	Columbia Gas of Kentucky
Pipe, Galv Wld, 5 3/4"	462235	Columbia Gas of Kentucky
Pipe, Galv Wld, 5 5/8"	462234	Columbia Gas of Kentucky
Pipe, Galv Wld, 5"	462230	Columbia Gas of Kentucky
Pipe, Galv Wld, 6 1/4"	462270	Columbia Gas of Kentucky
Pipe, Galv Wld, 6 5/8"	462237	Columbia Gas of Kentucky
Pipe, Galv Wld, 6"	462236	Columbia Gas of Kentucky
Pipe, Galv Wld, 7 5/8"	462239	Columbia Gas of Kentucky
Pipe, Galv Wld, 7"	462238	Columbia Gas of Kentucky
Pipe, Galv Wld, 8 1/4"	462241	Columbia Gas of Kentucky
Pipe, Galv Wld, 8 5/8"	462242	Columbia Gas of Kentucky
Pipe, Galv Wld, 8"	462240	Columbia Gas of Kentucky
Pipe, Galv Wld, 9 5/8"	462244	Columbia Gas of Kentucky
Pipe, Galv Wld, 10 3/4"	462247	Columbia Gas of Kentucky
Pipe, Galv Wld, 10 5/8"	462246	Columbia Gas of Kentucky
Pipe, Galv Wld, 10"	462245	Columbia Gas of Kentucky
Pipe, Galv Wld, 11 5/8"	462249	Columbia Gas of Kentucky
Pipe, Galv Wld, 11"	462248	Columbia Gas of Kentucky
Pipe, Galv Wld, 12 1/2"	462251	Columbia Gas of Kentucky
Pipe, Galv Wld, 12 5/8"	462271	Columbia Gas of Kentucky
Pipe, Galv Wld, 12"	462250	Columbia Gas of Kentucky
Pipe, Galv Wld, 13 1/2"	462253	Columbia Gas of Kentucky
Pipe, Galv Wld, 13 3/8"	462252	Columbia Gas of Kentucky
Pipe, Galv Wld, 14"	462254	Columbia Gas of Kentucky
Pipe, Galv Wld, 16"	462256	Columbia Gas of Kentucky
Pipe, Galv Wld, 18"	462257	Columbia Gas of Kentucky
Pipe, Galv Wld, 20"	462258	Columbia Gas of Kentucky
Pipe, Galv Wld, 24"	462260	Columbia Gas of Kentucky
Pipe, Galv Wld, 36"	462266	Columbia Gas of Kentucky
Pipe, Pl, 1/2"	463006	Columbia Gas of Kentucky
Pipe, Pl, 1/4"	463003	Columbia Gas of Kentucky
Pipe, Pl, 1/8"	463001	Columbia Gas of Kentucky
Pipe, Pl, 3/16"	463002	Columbia Gas of Kentucky
Pipe, Pl, 3/4"	463008	Columbia Gas of Kentucky
Pipe, Pl, 3/8"	463005	Columbia Gas of Kentucky
Pipe, Pl, 5/16"	463004	Columbia Gas of Kentucky
Pipe, Pl, 5/8"	463007	Columbia Gas of Kentucky

retire_unit	external_retire_unit	company
Pipe, Pl, 1 1/2"	463015	Columbia Gas of Kentucky
Pipe, Pl, 1 1/4"	463012	Columbia Gas of Kentucky
Pipe, Pl, 1 1/8"	463011	Columbia Gas of Kentucky
Pipe, Pl, 1 3/8"	463014	Columbia Gas of Kentucky
Pipe, Pl, 1 5/16"	463013	Columbia Gas of Kentucky
Pipe, Pl, 1"	463010	Columbia Gas of Kentucky
Pipe, Pl, 2 1/2"	463018	Columbia Gas of Kentucky
Pipe, Pl, 2 1/4"	463017	Columbia Gas of Kentucky
Pipe, Pl, 2 5/8"	463020	Columbia Gas of Kentucky
Pipe, Pl, 2 9/16"	463019	Columbia Gas of Kentucky
Pipe, Pl, 2"	463016	Columbia Gas of Kentucky
Pipe, Pl, 3 1/16"	463022	Columbia Gas of Kentucky
Pipe, Pl, 3 1/2"	463025	Columbia Gas of Kentucky
Pipe, Pl, 3 1/4"	463024	Columbia Gas of Kentucky
Pipe, Pl, 3 1/8"	463023	Columbia Gas of Kentucky
Pipe, Pl, 3"	463021	Columbia Gas of Kentucky
Pipe, Pl, 4 1/2"	463027	Columbia Gas of Kentucky
Pipe, Pl, 4 3/4"	463028	Columbia Gas of Kentucky
Pipe, Pl, 4 7/8"	463029	Columbia Gas of Kentucky
Pipe, Pl, 4"	463026	Columbia Gas of Kentucky
Pipe, Pl, 5 1/2"	463033	Columbia Gas of Kentucky
Pipe, Pl, 5 1/4"	463032	Columbia Gas of Kentucky
Pipe, Pl, 5 3/16"	463031	Columbia Gas of Kentucky
Pipe, Pl, 5 3/4"	463035	Columbia Gas of Kentucky
Pipe, Pl, 5 5/8"	463034	Columbia Gas of Kentucky
Pipe, Pl, 5"	463030	Columbia Gas of Kentucky
Pipe, Pl, 6 1/4"	463070	Columbia Gas of Kentucky
Pipe, Pl, 6 5/8"	463037	Columbia Gas of Kentucky
Pipe, Pl, 6"	463036	Columbia Gas of Kentucky
Pipe, Pl, 7 5/8"	463039	Columbia Gas of Kentucky
Pipe, Pl, 7"	463038	Columbia Gas of Kentucky
Pipe, Pl, 8 1/4"	463041	Columbia Gas of Kentucky
Pipe, Pl, 8 5/8"	463042	Columbia Gas of Kentucky
Pipe, Pl, 8"	463040	Columbia Gas of Kentucky
Pipe, Pl, 9 5/8"	463044	Columbia Gas of Kentucky
Pipe, Pl, 10 3/4"	463047	Columbia Gas of Kentucky
Pipe, Pl, 10 5/8"	463046	Columbia Gas of Kentucky
Pipe, Pl, 10"	463045	Columbia Gas of Kentucky
Pipe, Pl, 11 5/8"	463049	Columbia Gas of Kentucky
Pipe, Pl, 11"	463048	Columbia Gas of Kentucky
Pipe, Pl, 12 1/2"	463051	Columbia Gas of Kentucky
Pipe, Pl, 12 5/8"	463071	Columbia Gas of Kentucky
Pipe, Pl, 12"	463050	Columbia Gas of Kentucky
Pipe, Pl, 13 1/2"	463053	Columbia Gas of Kentucky
Pipe, Pl, 13 3/8"	463052	Columbia Gas of Kentucky
Pipe, Pl, 14"	463054	Columbia Gas of Kentucky
Pipe, Pl, 16"	463056	Columbia Gas of Kentucky
Pipe, Pl, 18"	463057	Columbia Gas of Kentucky
Pipe, Pl, 20"	463058	Columbia Gas of Kentucky
Pipe, Pl, 24"	463060	Columbia Gas of Kentucky
Pipe, Pl, 36"	463066	Columbia Gas of Kentucky
Pipe, Plastic	655296	Columbia Gas of Kentucky
Pipe, S Pi, 1/2"	464606	Columbia Gas of Kentucky

<u>retire_unit</u>	<u>external_retire_unit</u>	<u>company</u>
Pipe, S Pi, 1/4"	464603	Columbia Gas of Kentucky
Pipe, S Pi, 1/8"	464601	Columbia Gas of Kentucky
Pipe, S Pi, 3/16"	464602	Columbia Gas of Kentucky
Pipe, S Pi, 3/4"	464608	Columbia Gas of Kentucky
Pipe, S Pi, 3/8"	464605	Columbia Gas of Kentucky
Pipe, S Pi, 5/16"	464604	Columbia Gas of Kentucky
Pipe, S Pi, 5/8"	464607	Columbia Gas of Kentucky
Pipe, S Pi, 1"	464610	Columbia Gas of Kentucky
Pipe, S Pi, 1-1/2"	464615	Columbia Gas of Kentucky
Pipe, S Pi, 1-1/4"	464612	Columbia Gas of Kentucky
Pipe, S Pi, 1-3/8"	464614	Columbia Gas of Kentucky
Pipe, S Pi, 2"	464616	Columbia Gas of Kentucky
Pipe, S Pi, 2-1/2"	464618	Columbia Gas of Kentucky
Pipe, S Pi, 3"	464621	Columbia Gas of Kentucky
Pipe, S Pi, 3-1/2"	464625	Columbia Gas of Kentucky
Pipe, S Pi, 3-1/4"	464624	Columbia Gas of Kentucky
Pipe, S Pi, 4"	464626	Columbia Gas of Kentucky
Pipe, S Pi, 4-1/2"	464627	Columbia Gas of Kentucky
Pipe, S Pi, 4-7/8"	464629	Columbia Gas of Kentucky
Pipe, S Pi, 5"	464630	Columbia Gas of Kentucky
Pipe, S Pi, 5-1/2"	464633	Columbia Gas of Kentucky
Pipe, S Pi, 5-3/16"	464631	Columbia Gas of Kentucky
Pipe, S Pi, 5-5/8"	464634	Columbia Gas of Kentucky
Pipe, S Pi, 6"	464636	Columbia Gas of Kentucky
Pipe, S Pi, 6-1/4"	464670	Columbia Gas of Kentucky
Pipe, S Pi, 6-5/8"	464637	Columbia Gas of Kentucky
Pipe, S Pi, 7"	464638	Columbia Gas of Kentucky
Pipe, S Pi, 7-5/8"	464639	Columbia Gas of Kentucky
Pipe, S Pi, 8"	464640	Columbia Gas of Kentucky
Pipe, S Pi, 8-5/8"	464642	Columbia Gas of Kentucky
Pipe, S Pi, 10"	464645	Columbia Gas of Kentucky
Pipe, S Pi, 10-5/8"	464646	Columbia Gas of Kentucky
Pipe, S Pi, 11"	464648	Columbia Gas of Kentucky
Pipe, S Pi, 12"	464650	Columbia Gas of Kentucky
Pipe, S Pi, 13-3/8"	464652	Columbia Gas of Kentucky
Pipe, S Pi, 14"	464654	Columbia Gas of Kentucky
Pipe, S Pi, 16"	464656	Columbia Gas of Kentucky
Pipe, S Pi, 18"	464657	Columbia Gas of Kentucky
Pipe, S Pi, 20"	464658	Columbia Gas of Kentucky
Pipe, S Pi, 24"	464660	Columbia Gas of Kentucky
Pipe, S Pi, 36"	464666	Columbia Gas of Kentucky
Pipe, St Pe, 1/4"	464403	Columbia Gas of Kentucky
Pipe, St Pe, 1/8"	464401	Columbia Gas of Kentucky
Pipe, St Pe, 3/16"	464402	Columbia Gas of Kentucky
Pipe, St Pe, 3/4"	464408	Columbia Gas of Kentucky
Pipe, St Pe, 3/8"	464405	Columbia Gas of Kentucky
Pipe, St Pe, 5/16"	464404	Columbia Gas of Kentucky
Pipe, St Pe, 5/8"	464407	Columbia Gas of Kentucky
Pipe, St Pe, 1"	464410	Columbia Gas of Kentucky
Pipe, St Pe, 1-1/2"	464415	Columbia Gas of Kentucky
Pipe, St Pe, 1-1/4"	464412	Columbia Gas of Kentucky
Pipe, St Pe, 1-1/8"	464411	Columbia Gas of Kentucky
Pipe, St Pe, 1-3/8"	464414	Columbia Gas of Kentucky

<u>retire_unit</u>	<u>external_retire_unit</u>	<u>company</u>
Pipe, St Pe, 2"	464416	Columbia Gas of Kentucky
Pipe, St Pe, 2-1/2"	464418	Columbia Gas of Kentucky
Pipe, St Pe, 3"	464421	Columbia Gas of Kentucky
Pipe, St Pe, 3-1/2"	464425	Columbia Gas of Kentucky
Pipe, St Pe, 3-1/4"	464424	Columbia Gas of Kentucky
Pipe, St Pe, 4"	464426	Columbia Gas of Kentucky
Pipe, St Pe, 4-1/2"	464427	Columbia Gas of Kentucky
Pipe, St Pe, 4-7/8"	464429	Columbia Gas of Kentucky
Pipe, St Pe, 5"	464430	Columbia Gas of Kentucky
Pipe, St Pe, 5-1/2"	464433	Columbia Gas of Kentucky
Pipe, St Pe, 5-3/16"	464431	Columbia Gas of Kentucky
Pipe, St Pe, 5-5/8"	464434	Columbia Gas of Kentucky
Pipe, St Pe, 6"	464436	Columbia Gas of Kentucky
Pipe, St Pe, 6-1/4"	464470	Columbia Gas of Kentucky
Pipe, St Pe, 6-5/8"	464437	Columbia Gas of Kentucky
Pipe, St Pe, 7"	464438	Columbia Gas of Kentucky
Pipe, St Pe, 7-5/8"	464439	Columbia Gas of Kentucky
Pipe, St Pe, 8"	464440	Columbia Gas of Kentucky
Pipe, St Pe, 8-1/4"	464441	Columbia Gas of Kentucky
Pipe, St Pe, 8-5/8"	464442	Columbia Gas of Kentucky
Pipe, St Pe, 9-5/8"	464444	Columbia Gas of Kentucky
Pipe, St Pe, 10"	464445	Columbia Gas of Kentucky
Pipe, St Pe, 10-5/8"	464446	Columbia Gas of Kentucky
Pipe, St Pe, 11"	464448	Columbia Gas of Kentucky
Pipe, St Pe, 12"	464450	Columbia Gas of Kentucky
Pipe, St Pe, 13-3/8"	464452	Columbia Gas of Kentucky
Pipe, St Pe, 14"	464454	Columbia Gas of Kentucky
Pipe, St Pe, 16"	464456	Columbia Gas of Kentucky
Pipe, St Pe, 18"	464457	Columbia Gas of Kentucky
Pipe, St Pe, 20"	464458	Columbia Gas of Kentucky
Pipe, St Pe, 24"	464460	Columbia Gas of Kentucky
Pipe, St Pe, 36"	464466	Columbia Gas of Kentucky
Pipe, St Sc, 1/4"	464303	Columbia Gas of Kentucky
Pipe, St Sc, 1/8"	464301	Columbia Gas of Kentucky
Pipe, St Sc, 3/16"	464302	Columbia Gas of Kentucky
Pipe, St Sc, 3/4"	464308	Columbia Gas of Kentucky
Pipe, St Sc, 3/8"	464305	Columbia Gas of Kentucky
Pipe, St Sc, 5/16"	464304	Columbia Gas of Kentucky
Pipe, St Sc, 5/8"	464307	Columbia Gas of Kentucky
Pipe, St Sc, 1"	464310	Columbia Gas of Kentucky
Pipe, St Sc, 1-1/2"	464315	Columbia Gas of Kentucky
Pipe, St Sc, 1-1/4"	464312	Columbia Gas of Kentucky
Pipe, St Sc, 1-3/8"	464314	Columbia Gas of Kentucky
Pipe, St Sc, 2"	464316	Columbia Gas of Kentucky
Pipe, St Sc, 2-1/2"	464318	Columbia Gas of Kentucky
Pipe, St Sc, 3"	464321	Columbia Gas of Kentucky
Pipe, St Sc, 3-1/2"	464325	Columbia Gas of Kentucky
Pipe, St Sc, 3-1/4"	464324	Columbia Gas of Kentucky
Pipe, St Sc, 4"	464326	Columbia Gas of Kentucky
Pipe, St Sc, 4-1/2"	464327	Columbia Gas of Kentucky
Pipe, St Sc, 4-7/8"	464329	Columbia Gas of Kentucky
Pipe, St Sc, 5"	464330	Columbia Gas of Kentucky
Pipe, St Sc, 5-1/2"	464333	Columbia Gas of Kentucky

<u>retire_unit</u>	<u>external_retire_unit</u>	<u>company</u>
Pipe, St Sc, 5-1/4"	464332	Columbia Gas of Kentucky
Pipe, St Sc, 5-3/16"	464331	Columbia Gas of Kentucky
Pipe, St Sc, 5-5/8"	464334	Columbia Gas of Kentucky
Pipe, St Sc, 6"	464336	Columbia Gas of Kentucky
Pipe, St Sc, 6-1/4"	464370	Columbia Gas of Kentucky
Pipe, St Sc, 6-5/8"	464337	Columbia Gas of Kentucky
Pipe, St Sc, 7"	464338	Columbia Gas of Kentucky
Pipe, St Sc, 7-5/8"	464339	Columbia Gas of Kentucky
Pipe, St Sc, 8"	464340	Columbia Gas of Kentucky
Pipe, St Sc, 8-1/4"	464341	Columbia Gas of Kentucky
Pipe, St Sc, 8-5/8"	464342	Columbia Gas of Kentucky
Pipe, St Sc, 9-5/8"	464344	Columbia Gas of Kentucky
Pipe, St Sc, 10"	464345	Columbia Gas of Kentucky
Pipe, St Sc, 10-5/8"	464346	Columbia Gas of Kentucky
Pipe, St Sc, 11"	464348	Columbia Gas of Kentucky
Pipe, St Sc, 12"	464350	Columbia Gas of Kentucky
Pipe, St Sc, 13-3/8"	464352	Columbia Gas of Kentucky
Pipe, St Sc, 14"	464354	Columbia Gas of Kentucky
Pipe, St Sc, 16"	464356	Columbia Gas of Kentucky
Pipe, St Sc, 18"	464357	Columbia Gas of Kentucky
Pipe, St Sc, 20"	464358	Columbia Gas of Kentucky
Pipe, St Sc, 24"	464360	Columbia Gas of Kentucky
Pipe, St Sc, 36"	464366	Columbia Gas of Kentucky
Pipe, St Tr Pe, 1/4"	464103	Columbia Gas of Kentucky
Pipe, St Tr Pe, 1/8"	464101	Columbia Gas of Kentucky
Pipe, St Tr Pe, 3/16"	464102	Columbia Gas of Kentucky
Pipe, St Tr Pe, 3/4"	464108	Columbia Gas of Kentucky
Pipe, St Tr Pe, 3/8"	464105	Columbia Gas of Kentucky
Pipe, St Tr Pe, 5/16"	464104	Columbia Gas of Kentucky
Pipe, St Tr Pe, 5/8"	464107	Columbia Gas of Kentucky
Pipe, St Tr Pe, 1"	464110	Columbia Gas of Kentucky
Pipe, St Tr Pe, 1-1/2"	464115	Columbia Gas of Kentucky
Pipe, St Tr Pe, 1-1/4"	464112	Columbia Gas of Kentucky
Pipe, St Tr Pe, 1-3/8"	464114	Columbia Gas of Kentucky
Pipe, St Tr Pe, 2"	464116	Columbia Gas of Kentucky
Pipe, St Tr Pe, 2-1/2"	464118	Columbia Gas of Kentucky
Pipe, St Tr Pe, 3"	464121	Columbia Gas of Kentucky
Pipe, St Tr Pe, 3-1/2"	464125	Columbia Gas of Kentucky
Pipe, St Tr Pe, 3-1/4"	464124	Columbia Gas of Kentucky
Pipe, St Tr Pe, 4"	464126	Columbia Gas of Kentucky
Pipe, St Tr Pe, 4-1/2"	464127	Columbia Gas of Kentucky
Pipe, St Tr Pe, 4-7/8"	464129	Columbia Gas of Kentucky
Pipe, St Tr Pe, 5"	464130	Columbia Gas of Kentucky
Pipe, St Tr Pe, 5-1/2"	464133	Columbia Gas of Kentucky
Pipe, St Tr Pe, 5-3/16"	464131	Columbia Gas of Kentucky
Pipe, St Tr Pe, 5-5/8"	464134	Columbia Gas of Kentucky
Pipe, St Tr Pe, 6"	464136	Columbia Gas of Kentucky
Pipe, St Tr Pe, 6-1/4"	464170	Columbia Gas of Kentucky
Pipe, St Tr Pe, 6-5/8"	464137	Columbia Gas of Kentucky
Pipe, St Tr Pe, 7"	464138	Columbia Gas of Kentucky
Pipe, St Tr Pe, 7-5/8"	464139	Columbia Gas of Kentucky
Pipe, St Tr Pe, 8"	464140	Columbia Gas of Kentucky
Pipe, St Tr Pe, 8-5/8"	464142	Columbia Gas of Kentucky



<u>retire_unit</u>	<u>external_retire_unit</u>	<u>company</u>
Pipe, St Tr Pe, 10"	464145	Columbia Gas of Kentucky
Pipe, St Tr Pe, 10-3/4"	464147	Columbia Gas of Kentucky
Pipe, St Tr Pe, 10-5/8"	464146	Columbia Gas of Kentucky
Pipe, St Tr Pe, 11"	464148	Columbia Gas of Kentucky
Pipe, St Tr Pe, 12"	464150	Columbia Gas of Kentucky
Pipe, St Tr Pe, 13-3/8"	464152	Columbia Gas of Kentucky
Pipe, St Tr Pe, 14"	464154	Columbia Gas of Kentucky
Pipe, St Tr Pe, 16"	464156	Columbia Gas of Kentucky
Pipe, St Tr Pe, 18"	464157	Columbia Gas of Kentucky
Pipe, St Tr Pe, 20"	464158	Columbia Gas of Kentucky
Pipe, St Tr Pe, 24"	464160	Columbia Gas of Kentucky
Pipe, St Tr Pe, 36"	464166	Columbia Gas of Kentucky
Pipe, St Tr Sc, 1/4"	464003	Columbia Gas of Kentucky
Pipe, St Tr Sc, 1/8"	464001	Columbia Gas of Kentucky
Pipe, St Tr Sc, 3/16"	464002	Columbia Gas of Kentucky
Pipe, St Tr Sc, 3/4"	464008	Columbia Gas of Kentucky
Pipe, St Tr Sc, 3/8"	464005	Columbia Gas of Kentucky
Pipe, St Tr Sc, 5/16"	464004	Columbia Gas of Kentucky
Pipe, St Tr Sc, 5/8"	464007	Columbia Gas of Kentucky
Pipe, St Tr Sc, 1"	464010	Columbia Gas of Kentucky
Pipe, St Tr Sc, 1-1/2"	464015	Columbia Gas of Kentucky
Pipe, St Tr Sc, 1-1/4"	464012	Columbia Gas of Kentucky
Pipe, St Tr Sc, 1-3/8"	464014	Columbia Gas of Kentucky
Pipe, St Tr Sc, 2"	464016	Columbia Gas of Kentucky
Pipe, St Tr Sc, 2-1/2"	464018	Columbia Gas of Kentucky
Pipe, St Tr Sc, 3"	464021	Columbia Gas of Kentucky
Pipe, St Tr Sc, 3-1/2"	464025	Columbia Gas of Kentucky
Pipe, St Tr Sc, 3-1/4"	464024	Columbia Gas of Kentucky
Pipe, St Tr Sc, 4"	464026	Columbia Gas of Kentucky
Pipe, St Tr Sc, 4-1/2"	464027	Columbia Gas of Kentucky
Pipe, St Tr Sc, 4-7/8"	464029	Columbia Gas of Kentucky
Pipe, St Tr Sc, 5"	464030	Columbia Gas of Kentucky
Pipe, St Tr Sc, 5-1/2"	464033	Columbia Gas of Kentucky
Pipe, St Tr Sc, 5-3/16"	464031	Columbia Gas of Kentucky
Pipe, St Tr Sc, 5-5/8"	464034	Columbia Gas of Kentucky
Pipe, St Tr Sc, 6"	464036	Columbia Gas of Kentucky
Pipe, St Tr Sc, 6-1/4"	464070	Columbia Gas of Kentucky
Pipe, St Tr Sc, 6-5/8"	464037	Columbia Gas of Kentucky
Pipe, St Tr Sc, 7"	464038	Columbia Gas of Kentucky
Pipe, St Tr Sc, 7-5/8"	464039	Columbia Gas of Kentucky
Pipe, St Tr Sc, 8"	464040	Columbia Gas of Kentucky
Pipe, St Tr Sc, 8-5/8"	464042	Columbia Gas of Kentucky
Pipe, St Tr Sc, 10"	464045	Columbia Gas of Kentucky
Pipe, St Tr Sc, 10-5/8"	464046	Columbia Gas of Kentucky
Pipe, St Tr Sc, 11"	464048	Columbia Gas of Kentucky
Pipe, St Tr Sc, 12"	464050	Columbia Gas of Kentucky
Pipe, St Tr Sc, 13-3/8"	464052	Columbia Gas of Kentucky
Pipe, St Tr Sc, 14"	464054	Columbia Gas of Kentucky
Pipe, St Tr Sc, 16"	464056	Columbia Gas of Kentucky
Pipe, St Tr Sc, 18"	464057	Columbia Gas of Kentucky
Pipe, St Tr Sc, 20"	464058	Columbia Gas of Kentucky
Pipe, St Tr Sc, 24"	464060	Columbia Gas of Kentucky
Pipe, St Tr Sc, 36"	464066	Columbia Gas of Kentucky

<u>retire_unit</u>	<u>external_retire_unit</u>	<u>company</u>
Pipe, St Tr Wl	Serv M/C St less 3" 655196	Columbia Gas of Kentucky
Pipe, St Tr Wl, 1/4"	464203	Columbia Gas of Kentucky
Pipe, St Tr Wl, 1/4"	464200	Columbia Gas of Kentucky
Pipe, St Tr Wl, 1/8"	464201	Columbia Gas of Kentucky
Pipe, St Tr Wl, 3/16"	464202	Columbia Gas of Kentucky
Pipe, St Tr Wl, 3/4"	464208	Columbia Gas of Kentucky
Pipe, St Tr Wl, 3/8"	464205	Columbia Gas of Kentucky
Pipe, St Tr Wl, 5/16"	464204	Columbia Gas of Kentucky
Pipe, St Tr Wl, 5/8"	464207	Columbia Gas of Kentucky
Pipe, St Tr Wl, 1"	464210	Columbia Gas of Kentucky
Pipe, St Tr Wl, 1-1/2"	464215	Columbia Gas of Kentucky
Pipe, St Tr Wl, 1-1/4"	464212	Columbia Gas of Kentucky
Pipe, St Tr Wl, 1-1/8"	464211	Columbia Gas of Kentucky
Pipe, St Tr Wl, 1-3/8"	464214	Columbia Gas of Kentucky
Pipe, St Tr Wl, 2"	464216	Columbia Gas of Kentucky
Pipe, St Tr Wl, 2-1/2"	464218	Columbia Gas of Kentucky
Pipe, St Tr Wl, 2-5/8"	464220	Columbia Gas of Kentucky
Pipe, St Tr Wl, 3"	464221	Columbia Gas of Kentucky
Pipe, St Tr Wl, 3-1/2"	464225	Columbia Gas of Kentucky
Pipe, St Tr Wl, 3-1/4"	464224	Columbia Gas of Kentucky
Pipe, St Tr Wl, 4"	464226	Columbia Gas of Kentucky
Pipe, St Tr Wl, 4-1/2"	464227	Columbia Gas of Kentucky
Pipe, St Tr Wl, 4-7/8"	464229	Columbia Gas of Kentucky
Pipe, St Tr Wl, 5"	464230	Columbia Gas of Kentucky
Pipe, St Tr Wl, 5-1/2"	464233	Columbia Gas of Kentucky
Pipe, St Tr Wl, 5-3/16"	464231	Columbia Gas of Kentucky
Pipe, St Tr Wl, 5-5/8"	464234	Columbia Gas of Kentucky
Pipe, St Tr Wl, 6"	464236	Columbia Gas of Kentucky
Pipe, St Tr Wl, 6-1/4"	464270	Columbia Gas of Kentucky
Pipe, St Tr Wl, 6-5/8"	464237	Columbia Gas of Kentucky
Pipe, St Tr Wl, 7"	464238	Columbia Gas of Kentucky
Pipe, St Tr Wl, 7-5/8"	464239	Columbia Gas of Kentucky
Pipe, St Tr Wl, 8"	464240	Columbia Gas of Kentucky
Pipe, St Tr Wl, 8-5/8"	464242	Columbia Gas of Kentucky
Pipe, St Tr Wl, 10"	464245	Columbia Gas of Kentucky
Pipe, St Tr Wl, 10-3/4"	464247	Columbia Gas of Kentucky
Pipe, St Tr Wl, 10-5/8"	464246	Columbia Gas of Kentucky
Pipe, St Tr Wl, 11"	464248	Columbia Gas of Kentucky
Pipe, St Tr Wl, 12"	464250	Columbia Gas of Kentucky
Pipe, St Tr Wl, 13-3/8"	464252	Columbia Gas of Kentucky
Pipe, St Tr Wl, 14"	464254	Columbia Gas of Kentucky
Pipe, St Tr Wl, 16"	464256	Columbia Gas of Kentucky
Pipe, St Tr Wl, 18"	464257	Columbia Gas of Kentucky
Pipe, St Tr Wl, 20"	464258	Columbia Gas of Kentucky
Pipe, St Tr Wl, 24"	464260	Columbia Gas of Kentucky
Pipe, St Tr Wl, 36"	464266	Columbia Gas of Kentucky
Pipe, St Wld, 1/4"	464503	Columbia Gas of Kentucky
Pipe, St Wld, 1/8"	464501	Columbia Gas of Kentucky
Pipe, St Wld, 3/16"	464502	Columbia Gas of Kentucky
Pipe, St Wld, 3/4"	464508	Columbia Gas of Kentucky
Pipe, St Wld, 3/8"	464505	Columbia Gas of Kentucky
Pipe, St Wld, 5/16"	464504	Columbia Gas of Kentucky
Pipe, St Wld, 5/8"	464507	Columbia Gas of Kentucky

<u>retire_unit</u>	<u>external_retire_unit</u>	<u>company</u>
Pipe, St Wld, 1"	464510	Columbia Gas of Kentucky
Pipe, St Wld, 1-1/2"	464515	Columbia Gas of Kentucky
Pipe, St Wld, 1-1/4"	464512	Columbia Gas of Kentucky
Pipe, St Wld, 1-3/8"	464514	Columbia Gas of Kentucky
Pipe, St Wld, 2"	464516	Columbia Gas of Kentucky
Pipe, St Wld, 2-1/2"	464518	Columbia Gas of Kentucky
Pipe, St Wld, 2-9/16"	464519	Columbia Gas of Kentucky
Pipe, St Wld, 3"	464521	Columbia Gas of Kentucky
Pipe, St Wld, 3-1/2"	464525	Columbia Gas of Kentucky
Pipe, St Wld, 3-1/4"	464524	Columbia Gas of Kentucky
Pipe, St Wld, 4"	464526	Columbia Gas of Kentucky
Pipe, St Wld, 4-1/2"	464527	Columbia Gas of Kentucky
Pipe, St Wld, 4-7/8"	464529	Columbia Gas of Kentucky
Pipe, St Wld, 5"	464530	Columbia Gas of Kentucky
Pipe, St Wld, 5-1/2"	464533	Columbia Gas of Kentucky
Pipe, St Wld, 5-3/16"	464531	Columbia Gas of Kentucky
Pipe, St Wld, 5-5/8"	464534	Columbia Gas of Kentucky
Pipe, St Wld, 6"	464536	Columbia Gas of Kentucky
Pipe, St Wld, 6-1/4"	464570	Columbia Gas of Kentucky
Pipe, St Wld, 6-5/8"	464537	Columbia Gas of Kentucky
Pipe, St Wld, 7"	464538	Columbia Gas of Kentucky
Pipe, St Wld, 7-5/8"	464539	Columbia Gas of Kentucky
Pipe, St Wld, 8"	464540	Columbia Gas of Kentucky
Pipe, St Wld, 8-1/4"	464541	Columbia Gas of Kentucky
Pipe, St Wld, 8-5/8"	464542	Columbia Gas of Kentucky
Pipe, St Wld, 9-5/8"	464544	Columbia Gas of Kentucky
Pipe, St Wld, 10"	464545	Columbia Gas of Kentucky
Pipe, St Wld, 10-5/8"	464546	Columbia Gas of Kentucky
Pipe, St Wld, 11"	464548	Columbia Gas of Kentucky
Pipe, St Wld, 12"	464550	Columbia Gas of Kentucky
Pipe, St Wld, 13-3/8"	464552	Columbia Gas of Kentucky
Pipe, St Wld, 14"	464554	Columbia Gas of Kentucky
Pipe, St Wld, 16"	464556	Columbia Gas of Kentucky
Pipe, St Wld, 18"	464557	Columbia Gas of Kentucky
Pipe, St Wld, 20"	464558	Columbia Gas of Kentucky
Pipe, St Wld, 24"	464560	Columbia Gas of Kentucky
Pipe, St Wld, 26"	464561	Columbia Gas of Kentucky
Pipe, St Wld, 36"	464566	Columbia Gas of Kentucky
Pipe, Wi Oth, 1/4"	465703	Columbia Gas of Kentucky
Pipe, Wi Oth, 1/8"	465701	Columbia Gas of Kentucky
Pipe, Wi Oth, 3/16"	465702	Columbia Gas of Kentucky
Pipe, Wi Oth, 3/4"	465708	Columbia Gas of Kentucky
Pipe, Wi Oth, 3/8"	465705	Columbia Gas of Kentucky
Pipe, Wi Oth, 5/16"	465704	Columbia Gas of Kentucky
Pipe, Wi Oth, 5/8"	465707	Columbia Gas of Kentucky
Pipe, Wi Oth, 1"	465710	Columbia Gas of Kentucky
Pipe, Wi Oth, 1-1/2"	465715	Columbia Gas of Kentucky
Pipe, Wi Oth, 1-1/4"	465712	Columbia Gas of Kentucky
Pipe, Wi Oth, 1-3/8"	465714	Columbia Gas of Kentucky
Pipe, Wi Oth, 2"	465716	Columbia Gas of Kentucky
Pipe, Wi Oth, 2-1/2"	465718	Columbia Gas of Kentucky
Pipe, Wi Oth, 3"	465721	Columbia Gas of Kentucky
Pipe, Wi Oth, 3-1/2"	465725	Columbia Gas of Kentucky

retire_unit	external_retire_unit	company
Pipe, Wi Oth, 3-1/4"	465724	Columbia Gas of Kentucky
Pipe, Wi Oth, 4"	465726	Columbia Gas of Kentucky
Pipe, Wi Oth, 4-1/2"	465727	Columbia Gas of Kentucky
Pipe, Wi Oth, 4-7/8"	465729	Columbia Gas of Kentucky
Pipe, Wi Oth, 5"	465730	Columbia Gas of Kentucky
Pipe, Wi Oth, 5-1/2"	465733	Columbia Gas of Kentucky
Pipe, Wi Oth, 5-3/16"	465731	Columbia Gas of Kentucky
Pipe, Wi Oth, 5-5/8"	465734	Columbia Gas of Kentucky
Pipe, Wi Oth, 6"	465736	Columbia Gas of Kentucky
Pipe, Wi Oth, 6-1/4"	465770	Columbia Gas of Kentucky
Pipe, Wi Oth, 6-5/8"	465737	Columbia Gas of Kentucky
Pipe, Wi Oth, 7"	465738	Columbia Gas of Kentucky
Pipe, Wi Oth, 7-5/8"	465739	Columbia Gas of Kentucky
Pipe, Wi Oth, 8"	465740	Columbia Gas of Kentucky
Pipe, Wi Oth, 8-5/8"	465742	Columbia Gas of Kentucky
Pipe, Wi Oth, 10"	465745	Columbia Gas of Kentucky
Pipe, Wi Oth, 10-5/8"	465746	Columbia Gas of Kentucky
Pipe, Wi Oth, 11"	465748	Columbia Gas of Kentucky
Pipe, Wi Oth, 12"	465750	Columbia Gas of Kentucky
Pipe, Wi Oth, 13-3/8"	465752	Columbia Gas of Kentucky
Pipe, Wi Oth, 14"	465754	Columbia Gas of Kentucky
Pipe, Wi Oth, 16"	465756	Columbia Gas of Kentucky
Pipe, Wi Oth, 18"	465757	Columbia Gas of Kentucky
Pipe, Wi Oth, 20"	465758	Columbia Gas of Kentucky
Pipe, Wi Oth, 24"	465760	Columbia Gas of Kentucky
Pipe, Wi Oth, 36"	465766	Columbia Gas of Kentucky
Pipe, Wi Pe, 1/4"	465503	Columbia Gas of Kentucky
Pipe, Wi Pe, 1/8"	465501	Columbia Gas of Kentucky
Pipe, Wi Pe, 3/16"	465502	Columbia Gas of Kentucky
Pipe, Wi Pe, 3/4"	465508	Columbia Gas of Kentucky
Pipe, Wi Pe, 3/8"	465505	Columbia Gas of Kentucky
Pipe, Wi Pe, 5/16"	465504	Columbia Gas of Kentucky
Pipe, Wi Pe, 5/8"	465507	Columbia Gas of Kentucky
Pipe, Wi Pe, 1"	465510	Columbia Gas of Kentucky
Pipe, Wi Pe, 1-1/2"	465515	Columbia Gas of Kentucky
Pipe, Wi Pe, 1-1/4"	465512	Columbia Gas of Kentucky
Pipe, Wi Pe, 1-3/8"	465514	Columbia Gas of Kentucky
Pipe, Wi Pe, 2"	465516	Columbia Gas of Kentucky
Pipe, Wi Pe, 2-1/2"	465518	Columbia Gas of Kentucky
Pipe, Wi Pe, 3"	465521	Columbia Gas of Kentucky
Pipe, Wi Pe, 3-1/2"	465525	Columbia Gas of Kentucky
Pipe, Wi Pe, 3-1/4"	465524	Columbia Gas of Kentucky
Pipe, Wi Pe, 4"	465526	Columbia Gas of Kentucky
Pipe, Wi Pe, 4-1/2"	465527	Columbia Gas of Kentucky
Pipe, Wi Pe, 4-7/8"	465529	Columbia Gas of Kentucky
Pipe, Wi Pe, 5"	465530	Columbia Gas of Kentucky
Pipe, Wi Pe, 5-1/2"	465533	Columbia Gas of Kentucky
Pipe, Wi Pe, 5-3/16"	465531	Columbia Gas of Kentucky
Pipe, Wi Pe, 5-5/8"	465534	Columbia Gas of Kentucky
Pipe, Wi Pe, 6"	465536	Columbia Gas of Kentucky
Pipe, Wi Pe, 6-1/4"	465570	Columbia Gas of Kentucky
Pipe, Wi Pe, 6-5/8"	465537	Columbia Gas of Kentucky
Pipe, Wi Pe, 7"	465538	Columbia Gas of Kentucky

<u>retire_unit</u>	<u>external_retire_unit</u>	<u>company</u>
Pipe, Wi Pe, 7-5/8"	465539	Columbia Gas of Kentucky
Pipe, Wi Pe, 8"	465540	Columbia Gas of Kentucky
Pipe, Wi Pe, 8-5/8"	465542	Columbia Gas of Kentucky
Pipe, Wi Pe, 10"	465545	Columbia Gas of Kentucky
Pipe, Wi Pe, 10-5/8"	465546	Columbia Gas of Kentucky
Pipe, Wi Pe, 11"	465548	Columbia Gas of Kentucky
Pipe, Wi Pe, 12"	465550	Columbia Gas of Kentucky
Pipe, Wi Pe, 13-3/8"	465552	Columbia Gas of Kentucky
Pipe, Wi Pe, 14"	465554	Columbia Gas of Kentucky
Pipe, Wi Pe, 16"	465556	Columbia Gas of Kentucky
Pipe, Wi Pe, 18"	465557	Columbia Gas of Kentucky
Pipe, Wi Pe, 20"	465558	Columbia Gas of Kentucky
Pipe, Wi Pe, 24"	465560	Columbia Gas of Kentucky
Pipe, Wi Pe, 36"	465566	Columbia Gas of Kentucky
Pipe, Wi Sc, 1/4"	465403	Columbia Gas of Kentucky
Pipe, Wi Sc, 1/8"	465401	Columbia Gas of Kentucky
Pipe, Wi Sc, 3/16"	465402	Columbia Gas of Kentucky
Pipe, Wi Sc, 3/4"	465408	Columbia Gas of Kentucky
Pipe, Wi Sc, 3/8"	465405	Columbia Gas of Kentucky
Pipe, Wi Sc, 5/16"	465404	Columbia Gas of Kentucky
Pipe, Wi Sc, 5/8"	465407	Columbia Gas of Kentucky
Pipe, Wi Sc, 1"	465410	Columbia Gas of Kentucky
Pipe, Wi Sc, 1-1/2"	465415	Columbia Gas of Kentucky
Pipe, Wi Sc, 1-1/4"	465412	Columbia Gas of Kentucky
Pipe, Wi Sc, 1-3/8"	465414	Columbia Gas of Kentucky
Pipe, Wi Sc, 2"	465416	Columbia Gas of Kentucky
Pipe, Wi Sc, 2-1/2"	465418	Columbia Gas of Kentucky
Pipe, Wi Sc, 3"	465421	Columbia Gas of Kentucky
Pipe, Wi Sc, 3-1/2"	465425	Columbia Gas of Kentucky
Pipe, Wi Sc, 3-1/4"	465424	Columbia Gas of Kentucky
Pipe, Wi Sc, 4"	465426	Columbia Gas of Kentucky
Pipe, Wi Sc, 4-1/2"	465427	Columbia Gas of Kentucky
Pipe, Wi Sc, 4-7/8"	465429	Columbia Gas of Kentucky
Pipe, Wi Sc, 5"	465430	Columbia Gas of Kentucky
Pipe, Wi Sc, 5-1/2"	465433	Columbia Gas of Kentucky
Pipe, Wi Sc, 5-3/16"	465431	Columbia Gas of Kentucky
Pipe, Wi Sc, 5-5/8"	465434	Columbia Gas of Kentucky
Pipe, Wi Sc, 6"	465436	Columbia Gas of Kentucky
Pipe, Wi Sc, 6-1/4"	465470	Columbia Gas of Kentucky
Pipe, Wi Sc, 6-5/8"	465437	Columbia Gas of Kentucky
Pipe, Wi Sc, 7"	465438	Columbia Gas of Kentucky
Pipe, Wi Sc, 7-5/8"	465439	Columbia Gas of Kentucky
Pipe, Wi Sc, 8"	465440	Columbia Gas of Kentucky
Pipe, Wi Sc, 8-5/8"	465442	Columbia Gas of Kentucky
Pipe, Wi Sc, 10"	465445	Columbia Gas of Kentucky
Pipe, Wi Sc, 10-5/8"	465446	Columbia Gas of Kentucky
Pipe, Wi Sc, 11"	465448	Columbia Gas of Kentucky
Pipe, Wi Sc, 12"	465450	Columbia Gas of Kentucky
Pipe, Wi Sc, 13-3/8"	465452	Columbia Gas of Kentucky
Pipe, Wi Sc, 14"	465454	Columbia Gas of Kentucky
Pipe, Wi Sc, 16"	465456	Columbia Gas of Kentucky
Pipe, Wi Sc, 18"	465457	Columbia Gas of Kentucky
Pipe, Wi Sc, 20"	465458	Columbia Gas of Kentucky

<u>retire_unit</u>	<u>external_retire_unit</u>	<u>company</u>
Pipe, Wi Sc, 24"	465460	Columbia Gas of Kentucky
Pipe, Wi Sc, 36"	465466	Columbia Gas of Kentucky
Pipe, Wi Wld, 1/4"	465603	Columbia Gas of Kentucky
Pipe, Wi Wld, 1/8"	465601	Columbia Gas of Kentucky
Pipe, Wi Wld, 3/16"	465602	Columbia Gas of Kentucky
Pipe, Wi Wld, 3/4"	465608	Columbia Gas of Kentucky
Pipe, Wi Wld, 3/8"	465605	Columbia Gas of Kentucky
Pipe, Wi Wld, 5/16"	465604	Columbia Gas of Kentucky
Pipe, Wi Wld, 5/8"	465607	Columbia Gas of Kentucky
Pipe, Wi Wld, 1"	465610	Columbia Gas of Kentucky
Pipe, Wi Wld, 1-1/2"	465615	Columbia Gas of Kentucky
Pipe, Wi Wld, 1-1/4"	465612	Columbia Gas of Kentucky
Pipe, Wi Wld, 1-3/8"	465614	Columbia Gas of Kentucky
Pipe, Wi Wld, 2"	465616	Columbia Gas of Kentucky
Pipe, Wi Wld, 2-1/2"	465618	Columbia Gas of Kentucky
Pipe, Wi Wld, 3"	465621	Columbia Gas of Kentucky
Pipe, Wi Wld, 3-1/2"	465625	Columbia Gas of Kentucky
Pipe, Wi Wld, 3-1/4"	465624	Columbia Gas of Kentucky
Pipe, Wi Wld, 4"	465626	Columbia Gas of Kentucky
Pipe, Wi Wld, 4-1/2"	465627	Columbia Gas of Kentucky
Pipe, Wi Wld, 4-7/8"	465629	Columbia Gas of Kentucky
Pipe, Wi Wld, 5"	465630	Columbia Gas of Kentucky
Pipe, Wi Wld, 5-1/2"	465633	Columbia Gas of Kentucky
Pipe, Wi Wld, 5-3/16"	465631	Columbia Gas of Kentucky
Pipe, Wi Wld, 5-5/8"	465634	Columbia Gas of Kentucky
Pipe, Wi Wld, 6"	465636	Columbia Gas of Kentucky
Pipe, Wi Wld, 6-1/4"	465670	Columbia Gas of Kentucky
Pipe, Wi Wld, 6-5/8"	465637	Columbia Gas of Kentucky
Pipe, Wi Wld, 7"	465638	Columbia Gas of Kentucky
Pipe, Wi Wld, 7-5/8"	465639	Columbia Gas of Kentucky
Pipe, Wi Wld, 8"	465640	Columbia Gas of Kentucky
Pipe, Wi Wld, 8-5/8"	465642	Columbia Gas of Kentucky
Pipe, Wi Wld, 10"	465645	Columbia Gas of Kentucky
Pipe, Wi Wld, 10-5/8"	465646	Columbia Gas of Kentucky
Pipe, Wi Wld, 11"	465648	Columbia Gas of Kentucky
Pipe, Wi Wld, 12"	465650	Columbia Gas of Kentucky
Pipe, Wi Wld, 13-3/8"	465652	Columbia Gas of Kentucky
Pipe, Wi Wld, 14"	465654	Columbia Gas of Kentucky
Pipe, Wi Wld, 16"	465656	Columbia Gas of Kentucky
Pipe, Wi Wld, 18"	465657	Columbia Gas of Kentucky
Pipe, Wi Wld, 20"	465658	Columbia Gas of Kentucky
Pipe, Wi Wld, 24"	465660	Columbia Gas of Kentucky
Pipe, Wi Wld, 36"	465666	Columbia Gas of Kentucky
Pipe/Epoxy Ln, 1/4"	466003	Columbia Gas of Kentucky
Pipe/Epoxy Ln, 1/8"	466001	Columbia Gas of Kentucky
Pipe/Epoxy Ln, 3/16"	466002	Columbia Gas of Kentucky
Pipe/Epoxy Ln, 3/4"	466008	Columbia Gas of Kentucky
Pipe/Epoxy Ln, 3/8"	466005	Columbia Gas of Kentucky
Pipe/Epoxy Ln, 5/16"	466004	Columbia Gas of Kentucky
Pipe/Epoxy Ln, 5/8"	466007	Columbia Gas of Kentucky
Pipe/Epoxy Ln, 1"	466010	Columbia Gas of Kentucky
Pipe/Epoxy Ln, 1-1/2"	466015	Columbia Gas of Kentucky
Pipe/Epoxy Ln, 1-1/4"	466012	Columbia Gas of Kentucky

<u>retire_unit</u>	<u>external_retire_unit</u>	<u>company</u>
Pipe/Epoxy Ln, 1-3/8"	466014	Columbia Gas of Kentucky
Pipe/Epoxy Ln, 2"	466016	Columbia Gas of Kentucky
Pipe/Epoxy Ln, 2-1/2"	466018	Columbia Gas of Kentucky
Pipe/Epoxy Ln, 3"	466021	Columbia Gas of Kentucky
Pipe/Epoxy Ln, 3-1/2"	466025	Columbia Gas of Kentucky
Pipe/Epoxy Ln, 3-1/4"	466024	Columbia Gas of Kentucky
Pipe/Epoxy Ln, 4"	466026	Columbia Gas of Kentucky
Pipe/Epoxy Ln, 4-1/2"	466027	Columbia Gas of Kentucky
Pipe/Epoxy Ln, 4-7/8"	466029	Columbia Gas of Kentucky
Pipe/Epoxy Ln, 5"	466030	Columbia Gas of Kentucky
Pipe/Epoxy Ln, 5-1/2"	466033	Columbia Gas of Kentucky
Pipe/Epoxy Ln, 5-3/16"	466031	Columbia Gas of Kentucky
Pipe/Epoxy Ln, 5-5/8"	466034	Columbia Gas of Kentucky
Pipe/Epoxy Ln, 6"	466036	Columbia Gas of Kentucky
Pipe/Epoxy Ln, 6-1/4"	466070	Columbia Gas of Kentucky
Pipe/Epoxy Ln, 6-5/8"	466037	Columbia Gas of Kentucky
Pipe/Epoxy Ln, 7"	466038	Columbia Gas of Kentucky
Pipe/Epoxy Ln, 7-5/8"	466039	Columbia Gas of Kentucky
Pipe/Epoxy Ln, 8"	466040	Columbia Gas of Kentucky
Pipe/Epoxy Ln, 8-5/8"	466042	Columbia Gas of Kentucky
Pipe/Epoxy Ln, 10"	466045	Columbia Gas of Kentucky
Pipe/Epoxy Ln, 10-5/8"	466046	Columbia Gas of Kentucky
Pipe/Epoxy Ln, 11"	466048	Columbia Gas of Kentucky
Pipe/Epoxy Ln, 12"	466050	Columbia Gas of Kentucky
Pipe/Epoxy Ln, 13-3/8"	466052	Columbia Gas of Kentucky
Pipe/Epoxy Ln, 14"	466054	Columbia Gas of Kentucky
Pipe/Epoxy Ln, 16"	466056	Columbia Gas of Kentucky
Pipe/Epoxy Ln, 18"	466057	Columbia Gas of Kentucky
Pipe/Epoxy Ln, 20"	466058	Columbia Gas of Kentucky
Pipe/Epoxy Ln, 24"	466060	Columbia Gas of Kentucky
Pipe/Epoxy Ln, 36"	466066	Columbia Gas of Kentucky
PISCC	868686	Columbia Gas of Kentucky
Pittsburgh 10	416388	Columbia Gas of Kentucky
Pittsburgh 20	416392	Columbia Gas of Kentucky
Pittsburgh 30	416396	Columbia Gas of Kentucky
Pl Pipe Install Eq	810578	Columbia Gas of Kentucky
Plant Security Sys	420650	Columbia Gas of Kentucky
Plastic Cutter	262575	Columbia Gas of Kentucky
Plastic Pvc, 1/4"	463103	Columbia Gas of Kentucky
Plastic Pvc, 1/8"	463101	Columbia Gas of Kentucky
Plastic Pvc, 3/16"	463102	Columbia Gas of Kentucky
Plastic Pvc, 3/4"	463108	Columbia Gas of Kentucky
Plastic Pvc, 3/8"	463105	Columbia Gas of Kentucky
Plastic Pvc, 5/16"	463104	Columbia Gas of Kentucky
Plastic Pvc, 5/8"	463107	Columbia Gas of Kentucky
Plastic Pvc, 1 1/2"	463115	Columbia Gas of Kentucky
Plastic Pvc, 1 1/4"	463112	Columbia Gas of Kentucky
Plastic Pvc, 1 1/8"	463111	Columbia Gas of Kentucky
Plastic Pvc, 1 3/8"	463114	Columbia Gas of Kentucky
Plastic Pvc, 1 5/16"	463113	Columbia Gas of Kentucky
Plastic Pvc, 1"	463110	Columbia Gas of Kentucky
Plastic Pvc, 2 1/2"	463118	Columbia Gas of Kentucky
Plastic Pvc, 2 1/4"	463117	Columbia Gas of Kentucky

<u>retire_unit</u>	<u>external_retire_unit</u>	<u>company</u>
Plastic Pvc, 2 5/8"	463120	Columbia Gas of Kentucky
Plastic Pvc, 2 9/16"	463119	Columbia Gas of Kentucky
Plastic Pvc, 2"	463116	Columbia Gas of Kentucky
Plastic Pvc, 3 1/16"	463122	Columbia Gas of Kentucky
Plastic Pvc, 3 1/2"	463125	Columbia Gas of Kentucky
Plastic Pvc, 3 1/4"	463124	Columbia Gas of Kentucky
Plastic Pvc, 3 1/8"	463123	Columbia Gas of Kentucky
Plastic Pvc, 3"	463121	Columbia Gas of Kentucky
Plastic Pvc, 4 1/2"	463127	Columbia Gas of Kentucky
Plastic Pvc, 4 3/4"	463128	Columbia Gas of Kentucky
Plastic Pvc, 4 7/8"	463129	Columbia Gas of Kentucky
Plastic Pvc, 4"	463126	Columbia Gas of Kentucky
Plastic Pvc, 5 1/2"	463133	Columbia Gas of Kentucky
Plastic Pvc, 5 1/4"	463132	Columbia Gas of Kentucky
Plastic Pvc, 5 3/16"	463131	Columbia Gas of Kentucky
Plastic Pvc, 5 3/4"	463135	Columbia Gas of Kentucky
Plastic Pvc, 5 5/8"	463134	Columbia Gas of Kentucky
Plastic Pvc, 5"	463130	Columbia Gas of Kentucky
Plastic Pvc, 6 1/4"	463170	Columbia Gas of Kentucky
Plastic Pvc, 6 5/8"	463137	Columbia Gas of Kentucky
Plastic Pvc, 6"	463136	Columbia Gas of Kentucky
Plastic Pvc, 7 5/8"	463139	Columbia Gas of Kentucky
Plastic Pvc, 7"	463138	Columbia Gas of Kentucky
Plastic Pvc, 8 1/4"	463141	Columbia Gas of Kentucky
Plastic Pvc, 8 5/8"	463142	Columbia Gas of Kentucky
Plastic Pvc, 8"	463140	Columbia Gas of Kentucky
Plastic Pvc, 9 5/8"	463144	Columbia Gas of Kentucky
Plastic Pvc, 10 3/4"	463147	Columbia Gas of Kentucky
Plastic Pvc, 10 5/8"	463146	Columbia Gas of Kentucky
Plastic Pvc, 10"	463145	Columbia Gas of Kentucky
Plastic Pvc, 11 5/8"	463149	Columbia Gas of Kentucky
Plastic Pvc, 11"	463148	Columbia Gas of Kentucky
Plastic Pvc, 12 1/2"	463151	Columbia Gas of Kentucky
Plastic Pvc, 12 5/8"	463171	Columbia Gas of Kentucky
Plastic Pvc, 12"	463150	Columbia Gas of Kentucky
Plastic Pvc, 13 1/2"	463153	Columbia Gas of Kentucky
Plastic Pvc, 13 3/8"	463152	Columbia Gas of Kentucky
Plastic Pvc, 14"	463154	Columbia Gas of Kentucky
Plastic Pvc, 16"	463156	Columbia Gas of Kentucky
Plastic Pvc, 18"	463157	Columbia Gas of Kentucky
Plastic Pvc, 20"	463158	Columbia Gas of Kentucky
Plastic Pvc, 24"	463160	Columbia Gas of Kentucky
Plastic Pvc, 36"	463166	Columbia Gas of Kentucky
Plate Surface	810582	Columbia Gas of Kentucky
Platform Extension	810586	Columbia Gas of Kentucky
Plotter	120018	Columbia Gas of Kentucky
Plow Lawn & Garden	810590	Columbia Gas of Kentucky
Plow Snow	810594	Columbia Gas of Kentucky
Plstc In Ftn, 1/4"	345403	Columbia Gas of Kentucky
Plstc In Ftn, 1/8"	345401	Columbia Gas of Kentucky
Plstc In Ftn, 3/16"	345402	Columbia Gas of Kentucky
Plstc In Ftn, 3/8"	345405	Columbia Gas of Kentucky
Plstc In Ftn, 5/16"	345404	Columbia Gas of Kentucky



<u>retire_unit</u>	<u>external_retire_unit</u>	<u>company</u>
Plstc In Ftn, 5/8"	345407	Columbia Gas of Kentucky
Plstc In Ftn, 1"	345410	Columbia Gas of Kentucky
Plstc In Ftn, 1-1/2"	345415	Columbia Gas of Kentucky
Plstc In Ftn, 1-1/4"	345412	Columbia Gas of Kentucky
Plstc In Ftn, 1-3/8"	345414	Columbia Gas of Kentucky
Plstc In Ftn, 2"	345416	Columbia Gas of Kentucky
Plstc In Ftn, 2-1/2"	345418	Columbia Gas of Kentucky
Plstc In Ftn, 3"	345421	Columbia Gas of Kentucky
Plstc In Ftn, 3-1/2"	345425	Columbia Gas of Kentucky
Plstc In Ftn, 3-1/4"	345424	Columbia Gas of Kentucky
Plstc In Ftn, 4"	345426	Columbia Gas of Kentucky
Plstc In Ftn, 4-1/2"	345427	Columbia Gas of Kentucky
Plstc In Ftn, 4-7/8"	345429	Columbia Gas of Kentucky
Plstc In Ftn, 5"	345430	Columbia Gas of Kentucky
Plstc In Ftn, 5-1/2"	345433	Columbia Gas of Kentucky
Plstc In Ftn, 5-3/16"	345431	Columbia Gas of Kentucky
Plstc In Ftn, 5-5/8"	345434	Columbia Gas of Kentucky
Plstc In Ftn, 6"	345436	Columbia Gas of Kentucky
Plstc In Ftn, 6-1/4"	345470	Columbia Gas of Kentucky
Plstc In Ftn, 6-5/8"	345437	Columbia Gas of Kentucky
Plstc In Ftn, 7"	345438	Columbia Gas of Kentucky
Plstc In Ftn, 7-5/8"	345439	Columbia Gas of Kentucky
Plstc In Ftn, 8"	345440	Columbia Gas of Kentucky
Plstc In Ftn, 8-5/8"	345442	Columbia Gas of Kentucky
Plstc In Ftn, 10"	345445	Columbia Gas of Kentucky
Plstc In Ftn, 10-5/8"	345446	Columbia Gas of Kentucky
Plstc In Ftn, 11"	345448	Columbia Gas of Kentucky
Plstc In Ftn, 12"	345450	Columbia Gas of Kentucky
Plstc In Ftn, 13-3/8"	345452	Columbia Gas of Kentucky
Plstc In Ftn, 14"	345454	Columbia Gas of Kentucky
Plstc In Ftn, 16"	345456	Columbia Gas of Kentucky
Plstc In Ftn, 18"	345457	Columbia Gas of Kentucky
Plstc In Ftn, 20"	345458	Columbia Gas of Kentucky
Plstc In Ftn, 24"	345460	Columbia Gas of Kentucky
Plstc In Ftn, 3/4o	345408	Columbia Gas of Kentucky
Plstc In Ftn, 36"	345466	Columbia Gas of Kentucky
Plt Pipe Al, 2"	480016	Columbia Gas of Kentucky
Plt Pipe Oth, 2"	480816	Columbia Gas of Kentucky
Plt Pipe Oth, 2-1/2"	480818	Columbia Gas of Kentucky
Plt Pipe Oth, 3"	480821	Columbia Gas of Kentucky
Plt Pipe Oth, 3-1/2"	480825	Columbia Gas of Kentucky
Plt Pipe Oth, 3-1/4"	480824	Columbia Gas of Kentucky
Plt Pipe Oth, 4"	480826	Columbia Gas of Kentucky
Plt Pipe Oth, 4-1/2"	480827	Columbia Gas of Kentucky
Plt Pipe Oth, 4-7/8"	480829	Columbia Gas of Kentucky
Plt Pipe Oth, 5"	480830	Columbia Gas of Kentucky
Plt Pipe Oth, 5-1/2"	480833	Columbia Gas of Kentucky
Plt Pipe Oth, 5-3/16"	480831	Columbia Gas of Kentucky
Plt Pipe Oth, 5-5/8"	480834	Columbia Gas of Kentucky
Plt Pipe Oth, 6"	480836	Columbia Gas of Kentucky
Plt Pipe Oth, 6-1/4"	480870	Columbia Gas of Kentucky
Plt Pipe Oth, 6-5/8"	480837	Columbia Gas of Kentucky
Plt Pipe Oth, 7"	480838	Columbia Gas of Kentucky

<u>retire_unit</u>	<u>external_retire_unit</u>	<u>company</u>
Plt Pipe Oth, 7-5/8"	480839	Columbia Gas of Kentucky
Plt Pipe Oth, 8"	480840	Columbia Gas of Kentucky
Plt Pipe Oth, 8-5/8"	480842	Columbia Gas of Kentucky
Plt Pipe Oth, 10"	480845	Columbia Gas of Kentucky
Plt Pipe Oth, 10-5/8"	480846	Columbia Gas of Kentucky
Plt Pipe Oth, 11"	480848	Columbia Gas of Kentucky
Plt Pipe Oth, 12"	480850	Columbia Gas of Kentucky
Plt Pipe Oth, 12-5/8"	480871	Columbia Gas of Kentucky
Plt Pipe Oth, 13-3/8"	480852	Columbia Gas of Kentucky
Plt Pipe Oth, 14"	480854	Columbia Gas of Kentucky
Plt Pipe Oth, 16"	480856	Columbia Gas of Kentucky
Plt Pipe Oth, 18"	480857	Columbia Gas of Kentucky
Plt Pipe Oth, 20"	480858	Columbia Gas of Kentucky
Plt Pipe Oth, 24"	480860	Columbia Gas of Kentucky
Plt Pipe Oth, 36"	480866	Columbia Gas of Kentucky
Plt Pipe Pl, 2"	480316	Columbia Gas of Kentucky
Plt Pipe Pl, 2-1/2"	480318	Columbia Gas of Kentucky
Plt Pipe Pl, 3"	480321	Columbia Gas of Kentucky
Plt Pipe Pl, 3-1/2"	480325	Columbia Gas of Kentucky
Plt Pipe Pl, 3-1/4"	480324	Columbia Gas of Kentucky
Plt Pipe Pl, 4"	480326	Columbia Gas of Kentucky
Plt Pipe Pl, 4-1/2"	480327	Columbia Gas of Kentucky
Plt Pipe Pl, 4-7/8"	480329	Columbia Gas of Kentucky
Plt Pipe Pl, 5"	480330	Columbia Gas of Kentucky
Plt Pipe Pl, 5-1/2"	480333	Columbia Gas of Kentucky
Plt Pipe Pl, 5-3/16"	480331	Columbia Gas of Kentucky
Plt Pipe Pl, 5-5/8"	480334	Columbia Gas of Kentucky
Plt Pipe Pl, 6"	480336	Columbia Gas of Kentucky
Plt Pipe Pl, 6-1/4"	480370	Columbia Gas of Kentucky
Plt Pipe Pl, 6-5/8"	480337	Columbia Gas of Kentucky
Plt Pipe Pl, 7"	480338	Columbia Gas of Kentucky
Plt Pipe Pl, 7-5/8"	480339	Columbia Gas of Kentucky
Plt Pipe Pl, 8"	480340	Columbia Gas of Kentucky
Plt Pipe Pl, 8-5/8"	480342	Columbia Gas of Kentucky
Plt Pipe Pl, 10"	480345	Columbia Gas of Kentucky
Plt Pipe Pl, 10-5/8"	480346	Columbia Gas of Kentucky
Plt Pipe Pl, 11"	480348	Columbia Gas of Kentucky
Plt Pipe Pl, 12"	480350	Columbia Gas of Kentucky
Plt Pipe Pl, 13-3/8"	480352	Columbia Gas of Kentucky
Plt Pipe Pl, 14"	480354	Columbia Gas of Kentucky
Plt Pipe Pl, 16"	480356	Columbia Gas of Kentucky
Plt Pipe Pl, 18"	480357	Columbia Gas of Kentucky
Plt Pipe Pl, 20"	480358	Columbia Gas of Kentucky
Plt Pipe Pl, 24"	480360	Columbia Gas of Kentucky
Plt Pipe Pl, 36"	480366	Columbia Gas of Kentucky
Plt Pipe St T, 2"	480416	Columbia Gas of Kentucky
Plt Pipe St T, 2-1/2"	480418	Columbia Gas of Kentucky
Plt Pipe St T, 3"	480421	Columbia Gas of Kentucky
Plt Pipe St T, 3-1/2"	480425	Columbia Gas of Kentucky
Plt Pipe St T, 3-1/4"	480424	Columbia Gas of Kentucky
Plt Pipe St T, 4"	480426	Columbia Gas of Kentucky
Plt Pipe St T, 4-1/2"	480427	Columbia Gas of Kentucky
Plt Pipe St T, 4-7/8"	480429	Columbia Gas of Kentucky

<u>retire_unit</u>	<u>external_retire_unit</u>	<u>company</u>
Plt Pipe St T, 5"	480430	Columbia Gas of Kentucky
Plt Pipe St T, 5-1/2"	480433	Columbia Gas of Kentucky
Plt Pipe St T, 5-3/16"	480431	Columbia Gas of Kentucky
Plt Pipe St T, 5-5/8"	480434	Columbia Gas of Kentucky
Plt Pipe St T, 6"	480436	Columbia Gas of Kentucky
Plt Pipe St T, 6-1/4"	480470	Columbia Gas of Kentucky
Plt Pipe St T, 6-5/8"	480437	Columbia Gas of Kentucky
Plt Pipe St T, 7"	480438	Columbia Gas of Kentucky
Plt Pipe St T, 7-5/8"	480439	Columbia Gas of Kentucky
Plt Pipe St T, 8"	480440	Columbia Gas of Kentucky
Plt Pipe St T, 8-5/8"	480442	Columbia Gas of Kentucky
Plt Pipe St T, 10"	480445	Columbia Gas of Kentucky
Plt Pipe St T, 10-3/4"	480447	Columbia Gas of Kentucky
Plt Pipe St T, 10-5/8"	480446	Columbia Gas of Kentucky
Plt Pipe St T, 11"	480448	Columbia Gas of Kentucky
Plt Pipe St T, 12"	480450	Columbia Gas of Kentucky
Plt Pipe St T, 13-3/8"	480452	Columbia Gas of Kentucky
Plt Pipe St T, 14"	480454	Columbia Gas of Kentucky
Plt Pipe St T, 16"	480456	Columbia Gas of Kentucky
Plt Pipe St T, 18"	480457	Columbia Gas of Kentucky
Plt Pipe St T, 20"	480458	Columbia Gas of Kentucky
Plt Pipe St T, 24"	480460	Columbia Gas of Kentucky
Plt Pipe St T, 36"	480466	Columbia Gas of Kentucky
Plt Pipe St, 2"	480516	Columbia Gas of Kentucky
Plt Pipe St, 2-1/2"	480518	Columbia Gas of Kentucky
Plt Pipe St, 3"	480521	Columbia Gas of Kentucky
Plt Pipe St, 3-1/2"	480525	Columbia Gas of Kentucky
Plt Pipe St, 3-1/4"	480524	Columbia Gas of Kentucky
Plt Pipe St, 4"	480526	Columbia Gas of Kentucky
Plt Pipe St, 4-1/2"	480527	Columbia Gas of Kentucky
Plt Pipe St, 4-7/8"	480529	Columbia Gas of Kentucky
Plt Pipe St, 5"	480530	Columbia Gas of Kentucky
Plt Pipe St, 5-1/2"	480533	Columbia Gas of Kentucky
Plt Pipe St, 5-3/16"	480531	Columbia Gas of Kentucky
Plt Pipe St, 5-5/8"	480534	Columbia Gas of Kentucky
Plt Pipe St, 6"	480536	Columbia Gas of Kentucky
Plt Pipe St, 6-1/4"	480570	Columbia Gas of Kentucky
Plt Pipe St, 6-5/8"	480537	Columbia Gas of Kentucky
Plt Pipe St, 7"	480538	Columbia Gas of Kentucky
Plt Pipe St, 7-5/8"	480539	Columbia Gas of Kentucky
Plt Pipe St, 8"	480540	Columbia Gas of Kentucky
Plt Pipe St, 8-5/8"	480542	Columbia Gas of Kentucky
Plt Pipe St, 10"	480545	Columbia Gas of Kentucky
Plt Pipe St, 10-5/8"	480546	Columbia Gas of Kentucky
Plt Pipe St, 11"	480548	Columbia Gas of Kentucky
Plt Pipe St, 12"	480550	Columbia Gas of Kentucky
Plt Pipe St, 13-3/8"	480552	Columbia Gas of Kentucky
Plt Pipe St, 14"	480554	Columbia Gas of Kentucky
Plt Pipe St, 16"	480556	Columbia Gas of Kentucky
Plt Pipe St, 18"	480557	Columbia Gas of Kentucky
Plt Pipe St, 20"	480558	Columbia Gas of Kentucky
Plt Pipe St, 24"	480560	Columbia Gas of Kentucky
Plt Pipe St, 36"	480566	Columbia Gas of Kentucky

<u>retire_unit</u>	<u>external_retire_unit</u>	<u>company</u>
Plumbing System	490000	Columbia Gas of Kentucky
Pnl,Swb Or Swch Gear	109040	Columbia Gas of Kentucky
Pole	495000	Columbia Gas of Kentucky
Pond Cooling	499200	Columbia Gas of Kentucky
Positioner Welding	810608	Columbia Gas of Kentucky
Postage Meter	262580	Columbia Gas of Kentucky
Power and Light System	516000	Columbia Gas of Kentucky
Power Drive	810610	Columbia Gas of Kentucky
Power Supply, Telephone	530000	Columbia Gas of Kentucky
Power Washer	810614	Columbia Gas of Kentucky
Precision Heater	355525	Columbia Gas of Kentucky
Press Arbor	810622	Columbia Gas of Kentucky
Press Test Meter/Reg	355530	Columbia Gas of Kentucky
Printer, All Types	120009	Columbia Gas of Kentucky
Printing Machine	262615	Columbia Gas of Kentucky
Private Easement	361320	Columbia Gas of Kentucky
Prod Lease Only	361130	Columbia Gas of Kentucky
Prod Lease W/Stor Rt	361140	Columbia Gas of Kentucky
Programmer Console	120008	Columbia Gas of Kentucky
Projector	420710	Columbia Gas of Kentucky
Proof Box (Baking)	420720	Columbia Gas of Kentucky
Public Easement	361330	Columbia Gas of Kentucky
Puller Pipe	810626	Columbia Gas of Kentucky
Puller Wheel	810630	Columbia Gas of Kentucky
Pulse Dampener, 6"	543036	Columbia Gas of Kentucky
Pulse Dampener, 6-1/4"	543070	Columbia Gas of Kentucky
Pulse Dampener, 6-5/8"	543037	Columbia Gas of Kentucky
Pulse Dampener, 7"	543038	Columbia Gas of Kentucky
Pulse Dampener, 7-5/8"	543039	Columbia Gas of Kentucky
Pulse Dampener, 8"	543040	Columbia Gas of Kentucky
Pulse Dampener, 8-5/8"	543042	Columbia Gas of Kentucky
Pulse Dampener, 10"	543045	Columbia Gas of Kentucky
Pulse Dampener, 10-5/8"	543046	Columbia Gas of Kentucky
Pulse Dampener, 11"	543048	Columbia Gas of Kentucky
Pulse Dampener, 12"	543050	Columbia Gas of Kentucky
Pulse Dampener, 13-3/8"	543052	Columbia Gas of Kentucky
Pulse Dampener, 14"	543054	Columbia Gas of Kentucky
Pulse Dampener, 16"	543056	Columbia Gas of Kentucky
Pulse Dampener, 18"	543057	Columbia Gas of Kentucky
Pulse Dampener, 20"	543058	Columbia Gas of Kentucky
Pulse Dampener, 22"	543059	Columbia Gas of Kentucky
Pulse Dampener, 24"	543060	Columbia Gas of Kentucky
Pulse Dampener, 36"	543066	Columbia Gas of Kentucky
Pulse Gen - Telecomm	544000	Columbia Gas of Kentucky
Pump Portable	810638	Columbia Gas of Kentucky
Pump, Stationary	546000	Columbia Gas of Kentucky
Pumping Unit Packaged	548000	Columbia Gas of Kentucky
Purging Equipment	810640	Columbia Gas of Kentucky
R/C 10m Or 11m/125	416737	Columbia Gas of Kentucky
Radio Two Way	420730	Columbia Gas of Kentucky
Railroad Siding	555000	Columbia Gas of Kentucky
Ramp Portable	810645	Columbia Gas of Kentucky
Range	420750	Columbia Gas of Kentucky

<u>retire_unit</u>	<u>external_retire_unit</u>	<u>company</u>
Reader, All Types	120011	Columbia Gas of Kentucky
Reboiler Unit Packaged	560000	Columbia Gas of Kentucky
Receiver Microwave	565000	Columbia Gas of Kentucky
Record Thermometer P	355576	Columbia Gas of Kentucky
Record/Tape Player	420760	Columbia Gas of Kentucky
Recorder Tape	420763	Columbia Gas of Kentucky
Reel Electric Powerd	810658	Columbia Gas of Kentucky
Refrigerator	420770	Columbia Gas of Kentucky
Regulator - Telecomm	569000	Columbia Gas of Kentucky
Regulator Installation, Hse, < 2"	575098	Columbia Gas of Kentucky
Regulator Installation, Hse, 2" & >	575099	Columbia Gas of Kentucky
Regulator Setting, 1"	590010	Columbia Gas of Kentucky
Regulator Setting, 1-1/2"	590015	Columbia Gas of Kentucky
Regulator Setting, 1-1/4"	590012	Columbia Gas of Kentucky
Regulator Setting, 1-3/8"	590014	Columbia Gas of Kentucky
Regulator Setting, 2"	590016	Columbia Gas of Kentucky
Regulator Setting, 2-1/2"	590018	Columbia Gas of Kentucky
Regulator Setting, 3"	590021	Columbia Gas of Kentucky
Regulator Setting, 3-1/2"	590025	Columbia Gas of Kentucky
Regulator Setting, 3-1/4"	590024	Columbia Gas of Kentucky
Regulator Setting, 4"	590026	Columbia Gas of Kentucky
Regulator Setting, 4-1/2"	590027	Columbia Gas of Kentucky
Regulator Setting, 4-7/8"	590029	Columbia Gas of Kentucky
Regulator Setting, 5"	590030	Columbia Gas of Kentucky
Regulator Setting, 5-1/2"	590033	Columbia Gas of Kentucky
Regulator Setting, 5-3/16"	590031	Columbia Gas of Kentucky
Regulator Setting, 5-5/8"	590034	Columbia Gas of Kentucky
Regulator Setting, 6"	590036	Columbia Gas of Kentucky
Regulator Setting, 6-1/4"	590070	Columbia Gas of Kentucky
Regulator Setting, 6-5/8"	590037	Columbia Gas of Kentucky
Regulator Setting, 7"	590038	Columbia Gas of Kentucky
Regulator Setting, 7-5/8"	590039	Columbia Gas of Kentucky
Regulator Setting, 8"	590040	Columbia Gas of Kentucky
Regulator Setting, 8-5/8"	590042	Columbia Gas of Kentucky
Regulator Setting, 10"	590045	Columbia Gas of Kentucky
Regulator Setting, 10-5/8"	590046	Columbia Gas of Kentucky
Regulator Setting, 11"	590048	Columbia Gas of Kentucky
Regulator Setting, 12"	590050	Columbia Gas of Kentucky
Regulator Setting, 13-3/8"	590052	Columbia Gas of Kentucky
Regulator Setting, 14"	590054	Columbia Gas of Kentucky
Regulator Setting, 16"	590056	Columbia Gas of Kentucky
Regulator Setting, 18"	590057	Columbia Gas of Kentucky
Regulator Setting, 20"	590058	Columbia Gas of Kentucky
Regulator Setting, 24"	590060	Columbia Gas of Kentucky
Regulator Setting, 36"	590066	Columbia Gas of Kentucky
Regulator Setting, Under 1"	590097	Columbia Gas of Kentucky
Regulator, 1"	580010	Columbia Gas of Kentucky
Regulator, 1-1/2"	580015	Columbia Gas of Kentucky
Regulator, 1-1/4"	580012	Columbia Gas of Kentucky
Regulator, 1-3/8"	580014	Columbia Gas of Kentucky
Regulator, 2"	580016	Columbia Gas of Kentucky
Regulator, 2-1/2"	580018	Columbia Gas of Kentucky
Regulator, 3"	580021	Columbia Gas of Kentucky

<u>retire_unit</u>	<u>external_retire_unit</u>	<u>company</u>
Regulator, 3-1/2"	580025	Columbia Gas of Kentucky
Regulator, 3-1/4"	580024	Columbia Gas of Kentucky
Regulator, 4"	580026	Columbia Gas of Kentucky
Regulator, 4-1/2"	580027	Columbia Gas of Kentucky
Regulator, 4-7/8"	580029	Columbia Gas of Kentucky
Regulator, 5"	580030	Columbia Gas of Kentucky
Regulator, 5-1/2"	580033	Columbia Gas of Kentucky
Regulator, 5-3/16"	580031	Columbia Gas of Kentucky
Regulator, 5-5/8"	580034	Columbia Gas of Kentucky
Regulator, 6"	580036	Columbia Gas of Kentucky
Regulator, 6-1/4"	580070	Columbia Gas of Kentucky
Regulator, 6-5/8"	580037	Columbia Gas of Kentucky
Regulator, 7"	580038	Columbia Gas of Kentucky
Regulator, 7-5/8"	580039	Columbia Gas of Kentucky
Regulator, 8"	580040	Columbia Gas of Kentucky
Regulator, 8-5/8"	580042	Columbia Gas of Kentucky
Regulator, no size specified	580000	Columbia Gas of Kentucky
Regulator, 1/4"	580003	Columbia Gas of Kentucky
Regulator, 10"	580045	Columbia Gas of Kentucky
Regulator, 10-5/8"	580046	Columbia Gas of Kentucky
Regulator, 11"	580048	Columbia Gas of Kentucky
Regulator, 12"	580050	Columbia Gas of Kentucky
Regulator, 13-3/8"	580052	Columbia Gas of Kentucky
Regulator, 14"	580054	Columbia Gas of Kentucky
Regulator, 16"	580056	Columbia Gas of Kentucky
Regulator, 18"	580057	Columbia Gas of Kentucky
Regulator, 20"	580058	Columbia Gas of Kentucky
Regulator, 24"	580060	Columbia Gas of Kentucky
Regulator, 3/4"	580008	Columbia Gas of Kentucky
Regulator, 3/8"	580005	Columbia Gas of Kentucky
Regulator, 36"	580066	Columbia Gas of Kentucky
Regulator, House, 2"	570016	Columbia Gas of Kentucky
Regulator, House, 2-1/2"	570018	Columbia Gas of Kentucky
Regulator, House, 3"	570021	Columbia Gas of Kentucky
Regulator, House, 3-1/2"	570025	Columbia Gas of Kentucky
Regulator, House, 3-1/4"	570024	Columbia Gas of Kentucky
Regulator, House, 4"	570026	Columbia Gas of Kentucky
Regulator, House, 4-1/2"	570027	Columbia Gas of Kentucky
Regulator, House, 4-7/8"	570029	Columbia Gas of Kentucky
Regulator, House, 5"	570030	Columbia Gas of Kentucky
Regulator, House, 5-1/2"	570033	Columbia Gas of Kentucky
Regulator, House, 5-3/16"	570031	Columbia Gas of Kentucky
Regulator, House, 5-5/8"	570034	Columbia Gas of Kentucky
Regulator, House, 6"	570036	Columbia Gas of Kentucky
Regulator, House, 6-1/4"	570070	Columbia Gas of Kentucky
Regulator, House, 6-5/8"	570037	Columbia Gas of Kentucky
Regulator, House, 7"	570038	Columbia Gas of Kentucky
Regulator, House, 7-5/8"	570039	Columbia Gas of Kentucky
Regulator, House, 8"	570040	Columbia Gas of Kentucky
Regulator, House, 8-5/8"	570042	Columbia Gas of Kentucky
Regulator, House, 1"	570010	Columbia Gas of Kentucky
Regulator, House, 10"	570045	Columbia Gas of Kentucky
Regulator, House, 10-5/8"	570046	Columbia Gas of Kentucky

<u>retire_unit</u>	<u>external_retire_unit</u>	<u>company</u>
Regulator, House, 11"	570048	Columbia Gas of Kentucky
Regulator, House, 1-1/2"	570015	Columbia Gas of Kentucky
Regulator, House, 1-1/4"	570012	Columbia Gas of Kentucky
Regulator, House, 12"	570050	Columbia Gas of Kentucky
Regulator, House, 2" and over	570099	Columbia Gas of Kentucky
Regulator, House, Less 2"	570098	Columbia Gas of Kentucky
Regulator, House, no size specified	570000	Columbia Gas of Kentucky
Regulator, Under 1"	580097	Columbia Gas of Kentucky
Remote Terminal Unit	592000	Columbia Gas of Kentucky
Retaining Wall	600000	Columbia Gas of Kentucky
Retaining Wall		Columbia Gas of Kentucky
Revetment	605000	Columbia Gas of Kentucky
Rights-Of-Way	610000	Columbia Gas of Kentucky
Riser Replacement	655299	Columbia Gas of Kentucky
Road	198300	Columbia Gas of Kentucky
Rock/Pitt 5	416384	Columbia Gas of Kentucky
Rockwel 4/5000/A5000	416826	Columbia Gas of Kentucky
Rockwell (Equimeter) T-100 : 416825	416825	Columbia Gas of Kentucky
Rockwell 10,000	416828	Columbia Gas of Kentucky
Rockwell 1600du500	416782	Columbia Gas of Kentucky
Rockwell 175-S	416815	Columbia Gas of Kentucky
Rockwell 250	416818	Columbia Gas of Kentucky
Rockwell 3000	416824	Columbia Gas of Kentucky
Rockwell 310	416819	Columbia Gas of Kentucky
Rockwell 415	416820	Columbia Gas of Kentucky
Rockwell 750	416821	Columbia Gas of Kentucky
Rockwell 800-1600	416822	Columbia Gas of Kentucky
Rockwell R-175	416814	Columbia Gas of Kentucky
Rockwell R-175/Tc	416816	Columbia Gas of Kentucky
Rockwell R-200	416817	Columbia Gas of Kentucky
Rockwell R-275	416823	Columbia Gas of Kentucky
Rockwell Roto R11	416806	Columbia Gas of Kentucky
Rockwell Roto R5	416805	Columbia Gas of Kentucky
Rockwell Roto R8	416804	Columbia Gas of Kentucky
Rockwell Tp-4/1440	416852	Columbia Gas of Kentucky
Rockwell Tp-4/275	416850	Columbia Gas of Kentucky
Rockwell Tp-4/720	416851	Columbia Gas of Kentucky
Rockwell Tp-9/1440	416855	Columbia Gas of Kentucky
Rockwell Tp-9/275	416853	Columbia Gas of Kentucky
Rockwell Tp-9/720	416854	Columbia Gas of Kentucky
Rokwl Roto R3/2a/2b	416803	Columbia Gas of Kentucky
Rokwl Roto Rp-11/125	416863	Columbia Gas of Kentucky
Rokwl Roto Rp-3/125	416856	Columbia Gas of Kentucky
Rokwl Roto Rp-3/1440	416860	Columbia Gas of Kentucky
Rokwl Roto Rp-3/250	416857	Columbia Gas of Kentucky
Rokwl Roto Rp-3/575	416858	Columbia Gas of Kentucky
Rokwl Roto Rp-3/720	416859	Columbia Gas of Kentucky
Rokwl Roto Rp-5/125	416861	Columbia Gas of Kentucky
Rokwl Roto Rp-8/125	416862	Columbia Gas of Kentucky
Romet Rm 1000/125	416683	Columbia Gas of Kentucky
Romet Rm 11000/175	416689	Columbia Gas of Kentucky
Romet Rm 1500/125	416681	Columbia Gas of Kentucky
Romet Rm 16000/175	416682	Columbia Gas of Kentucky

<u>retire_unit</u>	<u>external_retire_unit</u>	<u>company</u>
Romet Rm 2000/175	416685	Columbia Gas of Kentucky
Romet RM 23000/175 Large : 416762	416762	Columbia Gas of Kentucky
Romet Rm 3000/175	416686	Columbia Gas of Kentucky
Romet Rm 5000/175	416687	Columbia Gas of Kentucky
Romet Rm 7000/175	416688	Columbia Gas of Kentucky
Roof	630000	Columbia Gas of Kentucky
Roof		Columbia Gas of Kentucky
Roots 1m 900	416740	Columbia Gas of Kentucky
Roots/Conn 102m125	416727	Columbia Gas of Kentucky
Roots/Conn 102m300	416721	Columbia Gas of Kentucky
Roots/Conn 10x15	416691	Columbia Gas of Kentucky
Roots/Conn 10x30	416701	Columbia Gas of Kentucky
Roots/Conn 12x18	416702	Columbia Gas of Kentucky
Roots/Conn 12x36	416703	Columbia Gas of Kentucky
Roots/Conn 14 X 21	416714	Columbia Gas of Kentucky
Roots/Conn 14x42	416704	Columbia Gas of Kentucky
Roots/Conn 16m/125	416739	Columbia Gas of Kentucky
Roots/Conn 16m/600	416719	Columbia Gas of Kentucky
Roots/Conn 16m400	416717	Columbia Gas of Kentucky
Roots/Conn 1m 620	416724	Columbia Gas of Kentucky
Roots/Conn 23m/600	416720	Columbia Gas of Kentucky
Roots/Conn 23m125	416712	Columbia Gas of Kentucky
Roots/Conn 2m900	416710	Columbia Gas of Kentucky
Roots/Conn 35x10	416692	Columbia Gas of Kentucky
Roots/Conn 38m/600	416728	Columbia Gas of Kentucky
Roots/Conn 38m125	416711	Columbia Gas of Kentucky
Roots/Conn 3m/125	416734	Columbia Gas of Kentucky
Roots/Conn 3m1200	416729	Columbia Gas of Kentucky
Roots/Conn 3m1440	416731	Columbia Gas of Kentucky
Roots/Conn 4x12	416694	Columbia Gas of Kentucky
Roots/Conn 4x8	416693	Columbia Gas of Kentucky
Roots/Conn 56m125	416713	Columbia Gas of Kentucky
Roots/Conn 5m/125	416735	Columbia Gas of Kentucky
Roots/Conn 5x10	416695	Columbia Gas of Kentucky
Roots/Conn 5x15	416696	Columbia Gas of Kentucky
Roots/Conn 6x10	416697	Columbia Gas of Kentucky
Roots/Conn 6x18	416698	Columbia Gas of Kentucky
Roots/Conn 7m/1200	416715	Columbia Gas of Kentucky
Roots/Conn 7m/125	416736	Columbia Gas of Kentucky
Roots/Conn 7m1440	416732	Columbia Gas of Kentucky
Roots/Conn 7m600	416716	Columbia Gas of Kentucky
Roots/Conn 8x12	416699	Columbia Gas of Kentucky
Roots/Conn 8x24	416700	Columbia Gas of Kentucky
Roots/Dress 11m175	416709	Columbia Gas of Kentucky
Roots/Dress 15m/125	416733	Columbia Gas of Kentucky
Roots/Dress 15m/175	416690	Columbia Gas of Kentucky
Roots/Dress 16m/175	416708	Columbia Gas of Kentucky
Roots/Dress 2m/175	416741	Columbia Gas of Kentucky
Roots/Dress 3m/175	416705	Columbia Gas of Kentucky
Roots/Dress 5m/175	416706	Columbia Gas of Kentucky
Roots/Dress 7m/175	416707	Columbia Gas of Kentucky
Roots/Dress 8c/125	416725	Columbia Gas of Kentucky
Roots/Dress 8c/175	416723	Columbia Gas of Kentucky



retire_unit	external_retire_unit	company
Roots/Dresser 11C175 TQM : 416743	416743	Columbia Gas of Kentucky
Roots/Dresser 11M175 TQM : 416749	416749	Columbia Gas of Kentucky
Roots/Dresser 15C175 TQM : 416744	416744	Columbia Gas of Kentucky
Roots/Dresser 16M175 TQM : 416750	416750	Columbia Gas of Kentucky
Roots/Dresser 3M175 TQM : 416745	416745	Columbia Gas of Kentucky
Roots/Dresser 5M175 TQM : 416747	416747	Columbia Gas of Kentucky
Roots/Dresser 7M175 TQM : 416748	416748	Columbia Gas of Kentucky
Roots/Dresser 8C175 TQM : 416742	416742	Columbia Gas of Kentucky
Roots/Dressr 36m600	416722	Columbia Gas of Kentucky
Rot A/C 125/130 Cfm	295130	Columbia Gas of Kentucky
Rot A/C Und 100 Cfm	295110	Columbia Gas of Kentucky
Roto-Bin	810668	Columbia Gas of Kentucky
Roto-Tiller	810670	Columbia Gas of Kentucky
Router/Shaper	810672	Columbia Gas of Kentucky
Rvrxing Aer 1, 2"	620116	Columbia Gas of Kentucky
Rvrxing Aer 1, 2-1/2"	620118	Columbia Gas of Kentucky
Rvrxing Aer 1, 3"	620121	Columbia Gas of Kentucky
Rvrxing Aer 1, 3-1/2"	620125	Columbia Gas of Kentucky
Rvrxing Aer 1, 3-1/4"	620124	Columbia Gas of Kentucky
Rvrxing Aer 1, 4"	620126	Columbia Gas of Kentucky
Rvrxing Aer 1, 4-1/2"	620127	Columbia Gas of Kentucky
Rvrxing Aer 1, 4-7/8"	620129	Columbia Gas of Kentucky
Rvrxing Aer 1, 5"	620130	Columbia Gas of Kentucky
Rvrxing Aer 1, 5-1/2"	620133	Columbia Gas of Kentucky
Rvrxing Aer 1, 5-3/16"	620131	Columbia Gas of Kentucky
Rvrxing Aer 1, 5-5/8"	620134	Columbia Gas of Kentucky
Rvrxing Aer 1, 6"	620136	Columbia Gas of Kentucky
Rvrxing Aer 1, 6-1/4"	620170	Columbia Gas of Kentucky
Rvrxing Aer 1, 6-5/8"	620137	Columbia Gas of Kentucky
Rvrxing Aer 1, 7"	620138	Columbia Gas of Kentucky
Rvrxing Aer 1, 7-5/8"	620139	Columbia Gas of Kentucky
Rvrxing Aer 1, 8"	620140	Columbia Gas of Kentucky
Rvrxing Aer 1, 8-5/8"	620142	Columbia Gas of Kentucky
Rvrxing Aer 1, 10"	620145	Columbia Gas of Kentucky
Rvrxing Aer 1, 10-5/8"	620146	Columbia Gas of Kentucky
Rvrxing Aer 1, 11"	620148	Columbia Gas of Kentucky
Rvrxing Aer 1, 12"	620150	Columbia Gas of Kentucky
Rvrxing Aer 1, 13-3/8"	620152	Columbia Gas of Kentucky
Rvrxing Aer 1, 14"	620154	Columbia Gas of Kentucky
Rvrxing Aer 1, 16"	620156	Columbia Gas of Kentucky
Rvrxing Aer 1, 18"	620157	Columbia Gas of Kentucky
Rvrxing Aer 1, 20"	620158	Columbia Gas of Kentucky
Rvrxing Aer 1, 24"	620160	Columbia Gas of Kentucky
Rvrxing Aer 1, 36"	620166	Columbia Gas of Kentucky
Rvrxing Sub 1, 2"	625116	Columbia Gas of Kentucky
Rvrxing Sub 1, 2-1/2"	625118	Columbia Gas of Kentucky
Rvrxing Sub 1, 3"	625121	Columbia Gas of Kentucky
Rvrxing Sub 1, 3-1/2"	625125	Columbia Gas of Kentucky
Rvrxing Sub 1, 3-1/4"	625124	Columbia Gas of Kentucky
Rvrxing Sub 1, 4"	625126	Columbia Gas of Kentucky
Rvrxing Sub 1, 4-1/2"	625127	Columbia Gas of Kentucky
Rvrxing Sub 1, 4-7/8"	625129	Columbia Gas of Kentucky
Rvrxing Sub 1, 5"	625130	Columbia Gas of Kentucky

<u>retire_unit</u>	<u>external_retire_unit</u>	<u>company</u>
Rvrxing Sub 1, 5-1/2"	625133	Columbia Gas of Kentucky
Rvrxing Sub 1, 5-3/16"	625131	Columbia Gas of Kentucky
Rvrxing Sub 1, 5-5/8"	625134	Columbia Gas of Kentucky
Rvrxing Sub 1, 6"	625136	Columbia Gas of Kentucky
Rvrxing Sub 1, 6-1/4"	625170	Columbia Gas of Kentucky
Rvrxing Sub 1, 6-5/8"	625137	Columbia Gas of Kentucky
Rvrxing Sub 1, 7"	625138	Columbia Gas of Kentucky
Rvrxing Sub 1, 7-5/8"	625139	Columbia Gas of Kentucky
Rvrxing Sub 1, 8"	625140	Columbia Gas of Kentucky
Rvrxing Sub 1, 8-5/8"	625142	Columbia Gas of Kentucky
Rvrxing Sub 1, 10"	625145	Columbia Gas of Kentucky
Rvrxing Sub 1, 10-5/8"	625146	Columbia Gas of Kentucky
Rvrxing Sub 1, 11"	625148	Columbia Gas of Kentucky
Rvrxing Sub 1, 12"	625150	Columbia Gas of Kentucky
Rvrxing Sub 1, 13-3/8"	625152	Columbia Gas of Kentucky
Rvrxing Sub 1, 14"	625154	Columbia Gas of Kentucky
Rvrxing Sub 1, 16"	625156	Columbia Gas of Kentucky
Rvrxing Sub 1, 18"	625157	Columbia Gas of Kentucky
Rvrxing Sub 1, 20"	625158	Columbia Gas of Kentucky
Rvrxing Sub 1, 24"	625160	Columbia Gas of Kentucky
Rvrxing Sub 1, 36"	625166	Columbia Gas of Kentucky
Rw Turb Aat-140/1440	416791	Columbia Gas of Kentucky
RW Turbo AAT 90/175 Large : 416834	416834	Columbia Gas of Kentucky
Rw Turbo Aat-140/220	416802	Columbia Gas of Kentucky
Rw Turbo Aat-140/720	416790	Columbia Gas of Kentucky
Rw Turbo Aat-18/1440	416786	Columbia Gas of Kentucky
Rw Turbo Aat-18/175	416810	Columbia Gas of Kentucky
Rw Turbo Aat-18/720	416811	Columbia Gas of Kentucky
Rw Turbo Aat-30/1440	416787	Columbia Gas of Kentucky
Rw Turbo Aat-30/175	416812	Columbia Gas of Kentucky
Rw Turbo Aat-30/720	416813	Columbia Gas of Kentucky
Rw Turbo Aat-60/1440	416789	Columbia Gas of Kentucky
Rw Turbo Aat-60/175	416808	Columbia Gas of Kentucky
Rw Turbo Aat-60/720	416809	Columbia Gas of Kentucky
Rw Turbo T-140/1440	416785	Columbia Gas of Kentucky
Rw Turbo T-140/220	416799	Columbia Gas of Kentucky
Rw Turbo T-140/720	416795	Columbia Gas of Kentucky
Rw Turbo T-18/125	416777	Columbia Gas of Kentucky
Rw Turbo T-18/1440	416778	Columbia Gas of Kentucky
Rw Turbo T-18/175	416798	Columbia Gas of Kentucky
Rw Turbo T-18/720	416793	Columbia Gas of Kentucky
Rw Turbo T-30/125	416779	Columbia Gas of Kentucky
Rw Turbo T-30/1440	416781	Columbia Gas of Kentucky
Rw Turbo T-30/175	416827	Columbia Gas of Kentucky
Rw Turbo T-30/720	416794	Columbia Gas of Kentucky
Rw Turbo T-60/125	416783	Columbia Gas of Kentucky
Rw Turbo T-60/1440	416801	Columbia Gas of Kentucky
Rw Turbo T-60/175	416797	Columbia Gas of Kentucky
Rw Turbo T-60/720	416807	Columbia Gas of Kentucky
Safe	262695	Columbia Gas of Kentucky
Sand Blast Machine	810682	Columbia Gas of Kentucky
Sander Power	810686	Columbia Gas of Kentucky
Saw Power	810690	Columbia Gas of Kentucky

<u>retire_unit</u>	<u>external_retire_unit</u>	<u>company</u>
Scaffold Mobile	810694	Columbia Gas of Kentucky
Scale Physician'S	420820	Columbia Gas of Kentucky
Scale Platform	810698	Columbia Gas of Kentucky
Scale,Postage-Elec	262698	Columbia Gas of Kentucky
Scanner	120020	Columbia Gas of Kentucky
Schlumberger 1000A Large : 416767	416767	Columbia Gas of Kentucky
Schlumberger 11m/175 Large	416774	Columbia Gas of Kentucky
Schlumberger 15m/175 Large	416754	Columbia Gas of Kentucky
Schlumberger 16m/175 Large	416775	Columbia Gas of Kentucky
Schlumberger 1m/175 Large	416753	Columbia Gas of Kentucky
Schlumberger 2m/175 Large	416769	Columbia Gas of Kentucky
Schlumberger 3m/175 Large	416770	Columbia Gas of Kentucky
Schlumberger 400a Tc	416765	Columbia Gas of Kentucky
Schlumberger 5m/175 Large	416771	Columbia Gas of Kentucky
Schlumberger 675A Large : 416751	416751	Columbia Gas of Kentucky
Schlumberger 7m/175 Large	416773	Columbia Gas of Kentucky
Schlumberger 800A Large : 416766	416766	Columbia Gas of Kentucky
Schlumberger 8c/175 Large	416752	Columbia Gas of Kentucky
Schlumberger SI 250	416764	Columbia Gas of Kentucky
Schlumberger,Matris 250	416760	Columbia Gas of Kentucky
Scraper (Casing)	192145	Columbia Gas of Kentucky
Sealer Printing Rm	262705	Columbia Gas of Kentucky
Sep/Heat Hor, 6"	645436	Columbia Gas of Kentucky
Separator Horiz, 6"	645136	Columbia Gas of Kentucky
Separator Horiz, 6-5/8"	645137	Columbia Gas of Kentucky
Separator Horiz, 7"	645138	Columbia Gas of Kentucky
Separator Horiz, 7-5/8"	645139	Columbia Gas of Kentucky
Separator Horiz, 8"	645140	Columbia Gas of Kentucky
Separator Horiz, 8-5/8"	645142	Columbia Gas of Kentucky
Separator Horiz, 10"	645145	Columbia Gas of Kentucky
Separator Horiz, 10-5/8"	645146	Columbia Gas of Kentucky
Separator Horiz, 11"	645148	Columbia Gas of Kentucky
Separator Horiz, 12"	645150	Columbia Gas of Kentucky
Separator Horiz, 13-3/8"	645152	Columbia Gas of Kentucky
Separator Horiz, 14"	645163	Columbia Gas of Kentucky
Separator Horiz, 16"	645156	Columbia Gas of Kentucky
Separator Horiz, 18"	645157	Columbia Gas of Kentucky
Separator Horiz, 20"	645158	Columbia Gas of Kentucky
Separator Horiz, 24"	645160	Columbia Gas of Kentucky
Separator Horiz, 30"	645163	Columbia Gas of Kentucky
Separator Horiz, 36"	645166	Columbia Gas of Kentucky
Separator Horiz, 42"	645167	Columbia Gas of Kentucky
Separator Horiz, 54"	645175	Columbia Gas of Kentucky
Separator Horiz, 56"	645176	Columbia Gas of Kentucky
Separator Horiz, 58"	645177	Columbia Gas of Kentucky
Separator Horiz, 60"	645178	Columbia Gas of Kentucky
Separator Horiz, 62"	645179	Columbia Gas of Kentucky
Separator Horiz, 64"	645180	Columbia Gas of Kentucky
Separator Horiz, 66"	645181	Columbia Gas of Kentucky
Separator Horiz, 68"	645182	Columbia Gas of Kentucky
Separator Horiz, 70"	645183	Columbia Gas of Kentucky
Separator Spher, 6"	645236	Columbia Gas of Kentucky
Separator Spher, 6-5/8"	645237	Columbia Gas of Kentucky

<u>retire_unit</u>	<u>external_retire_unit</u>	<u>company</u>
Separator Spher, 7"	645238	Columbia Gas of Kentucky
Separator Spher, 7-5/8"	645239	Columbia Gas of Kentucky
Separator Spher, 8"	645240	Columbia Gas of Kentucky
Separator Spher, 8-5/8"	645242	Columbia Gas of Kentucky
Separator Spher, 10"	645245	Columbia Gas of Kentucky
Separator Spher, 10-5/8"	645246	Columbia Gas of Kentucky
Separator Spher, 11"	645248	Columbia Gas of Kentucky
Separator Spher, 12"	645250	Columbia Gas of Kentucky
Separator Spher, 13-3/8"	645252	Columbia Gas of Kentucky
Separator Spher, 14"	645254	Columbia Gas of Kentucky
Separator Spher, 16"	645256	Columbia Gas of Kentucky
Separator Spher, 18"	645257	Columbia Gas of Kentucky
Separator Spher, 20"	645258	Columbia Gas of Kentucky
Separator Spher, 24"	645260	Columbia Gas of Kentucky
Separator Spher, 36"	645266	Columbia Gas of Kentucky
Separator Spher, 54"	645275	Columbia Gas of Kentucky
Separator Spher, 56"	645276	Columbia Gas of Kentucky
Separator Spher, 58"	645277	Columbia Gas of Kentucky
Separator Spher, 60"	645278	Columbia Gas of Kentucky
Separator Spher, 62"	645279	Columbia Gas of Kentucky
Separator Spher, 64"	645280	Columbia Gas of Kentucky
Separator Spher, 66"	645281	Columbia Gas of Kentucky
Separator Spher, 68"	645282	Columbia Gas of Kentucky
Separator Spher, 70"	645283	Columbia Gas of Kentucky
Separator Vert, 6"	645336	Columbia Gas of Kentucky
Separator Vert, 6-5/8"	645337	Columbia Gas of Kentucky
Separator Vert, 7"	645338	Columbia Gas of Kentucky
Separator Vert, 7-5/8"	645339	Columbia Gas of Kentucky
Separator Vert, 8"	645340	Columbia Gas of Kentucky
Separator Vert, 8-5/8"	645342	Columbia Gas of Kentucky
Separator Vert, 10"	645345	Columbia Gas of Kentucky
Separator Vert, 10-5/8"	645346	Columbia Gas of Kentucky
Separator Vert, 11"	645348	Columbia Gas of Kentucky
Separator Vert, 12"	645350	Columbia Gas of Kentucky
Separator Vert, 13-3/8"	645352	Columbia Gas of Kentucky
Separator Vert, 14"	645354	Columbia Gas of Kentucky
Separator Vert, 16"	645356	Columbia Gas of Kentucky
Separator Vert, 18"	645357	Columbia Gas of Kentucky
Separator Vert, 20"	645358	Columbia Gas of Kentucky
Separator Vert, 24"	645360	Columbia Gas of Kentucky
Separator Vert, 30"	645363	Columbia Gas of Kentucky
Separator Vert, 36"	645366	Columbia Gas of Kentucky
Separator Vert, 54"	645375	Columbia Gas of Kentucky
Separator Vert, 56"	645376	Columbia Gas of Kentucky
Separator Vert, 58"	645377	Columbia Gas of Kentucky
Separator Vert, 60"	645378	Columbia Gas of Kentucky
Separator Vert, 62"	645379	Columbia Gas of Kentucky
Separator Vert, 64"	645380	Columbia Gas of Kentucky
Separator Vert, 66"	645381	Columbia Gas of Kentucky
Separator Vert, 68"	645382	Columbia Gas of Kentucky
Separator Vert, 70"	645383	Columbia Gas of Kentucky
Serv C/M PI, 2-1/2"	655518	Columbia Gas of Kentucky
Serv C/M PI, 3"	655521	Columbia Gas of Kentucky

retire_unit	external_retire_unit	company
Serv C/M PI, 3-1/2"	655525	Columbia Gas of Kentucky
Serv C/M PI, 3-1/4"	655524	Columbia Gas of Kentucky
Serv C/M PI, 3-1/8"	655523	Columbia Gas of Kentucky
Serv C/M PI, 4"	655526	Columbia Gas of Kentucky
Serv C/M PI, 4-1/2"	655527	Columbia Gas of Kentucky
Serv C/M PI, 4-7/8"	655529	Columbia Gas of Kentucky
Serv C/M PI, 5"	655530	Columbia Gas of Kentucky
Serv C/M PI, 5-1/2"	655533	Columbia Gas of Kentucky
Serv C/M PI, 5-3/16"	655531	Columbia Gas of Kentucky
Serv C/M PI, 5-5/8"	655534	Columbia Gas of Kentucky
Serv C/M PI, 6"	655536	Columbia Gas of Kentucky
Serv C/M PI, 6-1/4"	655570	Columbia Gas of Kentucky
Serv C/M PI, 6-5/8"	655537	Columbia Gas of Kentucky
Serv C/M PI, 7"	655538	Columbia Gas of Kentucky
Serv C/M PI, 7-5/8"	655539	Columbia Gas of Kentucky
Serv C/M PI, 8"	655540	Columbia Gas of Kentucky
Serv C/M PI, 8-5/8"	655542	Columbia Gas of Kentucky
Serv C/M PL, 1"	655510	Columbia Gas of Kentucky
Serv C/M PL, 1/2"	655506	Columbia Gas of Kentucky
Serv C/M PI, 10"	655545	Columbia Gas of Kentucky
Serv C/M PI, 10-5/8"	655546	Columbia Gas of Kentucky
Serv C/M PI, 11"	655548	Columbia Gas of Kentucky
Serv C/M PL, 1-1/4"	655512	Columbia Gas of Kentucky
Serv C/M PI, 12"	655550	Columbia Gas of Kentucky
Serv C/M PI, 13-3/8"	655552	Columbia Gas of Kentucky
Serv C/M PI, 14"	655554	Columbia Gas of Kentucky
Serv C/M PI, 16"	655556	Columbia Gas of Kentucky
Serv C/M PI, 18"	655557	Columbia Gas of Kentucky
Serv C/M PL, 2"	655516	Columbia Gas of Kentucky
Serv C/M PI, 20"	655558	Columbia Gas of Kentucky
Serv C/M PI, 24"	655560	Columbia Gas of Kentucky
Serv C/M PL, 3/4"	655508	Columbia Gas of Kentucky
Serv C/M PI, 36"	655566	Columbia Gas of Kentucky
Serv C/M PI, Less 3"	655596	Columbia Gas of Kentucky
Serv C/M S/Pi, 2-1/2"	655618	Columbia Gas of Kentucky
Serv C/M S/Pi, 3"	655621	Columbia Gas of Kentucky
Serv C/M S/Pi, 3-1/2"	655625	Columbia Gas of Kentucky
Serv C/M S/Pi, 3-1/4"	655624	Columbia Gas of Kentucky
Serv C/M S/Pi, 4"	655626	Columbia Gas of Kentucky
Serv C/M S/Pi, 4-1/2"	655627	Columbia Gas of Kentucky
Serv C/M S/Pi, 4-7/8"	655629	Columbia Gas of Kentucky
Serv C/M S/Pi, 5"	655630	Columbia Gas of Kentucky
Serv C/M S/Pi, 5-1/2"	655633	Columbia Gas of Kentucky
Serv C/M S/Pi, 5-3/16"	655631	Columbia Gas of Kentucky
Serv C/M S/Pi, 5-5/8"	655634	Columbia Gas of Kentucky
Serv C/M S/Pi, 6"	655636	Columbia Gas of Kentucky
Serv C/M S/Pi, 6-1/4"	655670	Columbia Gas of Kentucky
Serv C/M S/Pi, 6-5/8"	655637	Columbia Gas of Kentucky
Serv C/M S/Pi, 7"	655638	Columbia Gas of Kentucky
Serv C/M S/Pi, 7-5/8"	655639	Columbia Gas of Kentucky
Serv C/M S/Pi, 8"	655640	Columbia Gas of Kentucky
Serv C/M S/Pi, 8-5/8"	655642	Columbia Gas of Kentucky
Serv C/M S/Pi, 10"	655645	Columbia Gas of Kentucky

<u>retire_unit</u>	<u>external_retire_unit</u>	<u>company</u>
Serv C/M S/Pi, 10-5/8"	655646	Columbia Gas of Kentucky
Serv C/M S/Pi, 11"	655648	Columbia Gas of Kentucky
Serv C/M S/Pi, 12"	655650	Columbia Gas of Kentucky
Serv C/M S/Pi, 13-3/8"	655652	Columbia Gas of Kentucky
Serv C/M S/Pi, 14"	655654	Columbia Gas of Kentucky
Serv C/M S/Pi, 16"	655656	Columbia Gas of Kentucky
Serv C/M S/Pi, 18"	655657	Columbia Gas of Kentucky
Serv C/M S/Pi, 20"	655658	Columbia Gas of Kentucky
Serv C/M S/Pi, 24"	655660	Columbia Gas of Kentucky
Serv C/M S/Pi, 36"	655666	Columbia Gas of Kentucky
Serv C/M St, 2-1/2"	655418	Columbia Gas of Kentucky
Serv C/M St, 3"	655421	Columbia Gas of Kentucky
Serv C/M St, 3-1/2"	655425	Columbia Gas of Kentucky
Serv C/M St, 3-1/4"	655424	Columbia Gas of Kentucky
Serv C/M St, 4"	655426	Columbia Gas of Kentucky
Serv C/M St, 4-1/2"	655427	Columbia Gas of Kentucky
Serv C/M St, 4-7/8"	655429	Columbia Gas of Kentucky
Serv C/M St, 5"	655430	Columbia Gas of Kentucky
Serv C/M St, 5-1/2"	655433	Columbia Gas of Kentucky
Serv C/M St, 5-3/16"	655431	Columbia Gas of Kentucky
Serv C/M St, 5-5/8"	655434	Columbia Gas of Kentucky
Serv C/M St, 6"	655436	Columbia Gas of Kentucky
Serv C/M St, 6-1/4"	655470	Columbia Gas of Kentucky
Serv C/M St, 6-5/8"	655437	Columbia Gas of Kentucky
Serv C/M St, 7"	655438	Columbia Gas of Kentucky
Serv C/M St, 7-5/8"	655439	Columbia Gas of Kentucky
Serv C/M St, 8"	655440	Columbia Gas of Kentucky
Serv C/M St, 8-5/8"	655442	Columbia Gas of Kentucky
Serv C/M St, 1"	655410	Columbia Gas of Kentucky
Serv C/M St, 10"	655445	Columbia Gas of Kentucky
Serv C/M St, 10-5/8"	655446	Columbia Gas of Kentucky
Serv C/M St, 11"	655448	Columbia Gas of Kentucky
Serv C/M St, 1-1/2"	655415	Columbia Gas of Kentucky
Serv C/M St, 1-1/2"	655416	Columbia Gas of Kentucky
Serv C/M St, 1-1/4"	655412	Columbia Gas of Kentucky
Serv C/M St, 12"	655450	Columbia Gas of Kentucky
Serv C/M St, 13-3/8"	655452	Columbia Gas of Kentucky
Serv C/M St, 14"	655454	Columbia Gas of Kentucky
Serv C/M St, 16"	655456	Columbia Gas of Kentucky
Serv C/M St, 18"	655457	Columbia Gas of Kentucky
Serv C/M St, 20"	655458	Columbia Gas of Kentucky
Serv C/M St, 24"	655460	Columbia Gas of Kentucky
Serv C/M St, 3/4"	655408	Columbia Gas of Kentucky
Serv C/M St, 36"	655466	Columbia Gas of Kentucky
Serv C/M St, Less 3"	655496	Columbia Gas of Kentucky
Serv M/C - PI, 2-1/2"	655218	Columbia Gas of Kentucky
Serv M/C - PI, 3"	655221	Columbia Gas of Kentucky
Serv M/C - PI, 3-1/2"	655225	Columbia Gas of Kentucky
Serv M/C - PI, 3-1/4"	655224	Columbia Gas of Kentucky
Serv M/C - PI, 3-1/8"	655223	Columbia Gas of Kentucky
Serv M/C - PI, 4"	655226	Columbia Gas of Kentucky
Serv M/C - PI, 4-1/2"	655227	Columbia Gas of Kentucky
Serv M/C - PI, 4-7/8"	655229	Columbia Gas of Kentucky

<u>retire_unit</u>	<u>external_retire_unit</u>	<u>company</u>
Serv M/C - Pl, 5"	655230	Columbia Gas of Kentucky
Serv M/C - Pl, 5-1/2"	655233	Columbia Gas of Kentucky
Serv M/C - Pl, 5-3/16"	655231	Columbia Gas of Kentucky
Serv M/C - Pl, 5-5/8"	655234	Columbia Gas of Kentucky
Serv M/C - Pl, 6"	655236	Columbia Gas of Kentucky
Serv M/C - Pl, 6-1/4"	655270	Columbia Gas of Kentucky
Serv M/C - Pl, 6-5/8"	655237	Columbia Gas of Kentucky
Serv M/C - Pl, 7"	655238	Columbia Gas of Kentucky
Serv M/C - Pl, 7-5/8"	655239	Columbia Gas of Kentucky
Serv M/C - Pl, 8"	655240	Columbia Gas of Kentucky
Serv M/C - Pl, 8-5/8"	655242	Columbia Gas of Kentucky
Serv M/C - Pl, 1"	655210	Columbia Gas of Kentucky
Serv M/C - Pl, 1/2"	655206	Columbia Gas of Kentucky
Serv M/C - Pl, 10"	655245	Columbia Gas of Kentucky
Serv M/C - Pl, 10-5/8"	655246	Columbia Gas of Kentucky
Serv M/C - Pl, 11"	655248	Columbia Gas of Kentucky
Serv M/C - Pl, 1-1/4"	655212	Columbia Gas of Kentucky
Serv M/C - Pl, 1-1/8"	655211	Columbia Gas of Kentucky
Serv M/C - Pl, 12"	655250	Columbia Gas of Kentucky
Serv M/C - Pl, 13-3/8"	655252	Columbia Gas of Kentucky
Serv M/C - Pl, 14"	655254	Columbia Gas of Kentucky
Serv M/C - Pl, 16"	655256	Columbia Gas of Kentucky
Serv M/C - Pl, 18"	655257	Columbia Gas of Kentucky
Serv M/C - Pl, 2"	655216	Columbia Gas of Kentucky
Serv M/C - Pl, 20"	655258	Columbia Gas of Kentucky
Serv M/C - Pl, 24"	655260	Columbia Gas of Kentucky
Serv M/C - Pl, 3/4"	655208	Columbia Gas of Kentucky
Serv M/C - Pl, 36"	655266	Columbia Gas of Kentucky
Serv M/C - Pl, less 2"	655298	Columbia Gas of Kentucky
Serv M/C - Pl, Less 3"	655296	Columbia Gas of Kentucky
Serv M/C - St, 2-1/2"	655118	Columbia Gas of Kentucky
Serv M/C - St, 2-9/16"	655119	Columbia Gas of Kentucky
Serv M/C - St, 3"	655121	Columbia Gas of Kentucky
Serv M/C - St, 3-1/2"	655125	Columbia Gas of Kentucky
Serv M/C - St, 3-1/4"	655124	Columbia Gas of Kentucky
Serv M/C - St, 4"	655126	Columbia Gas of Kentucky
Serv M/C - St, 4-1/2"	655127	Columbia Gas of Kentucky
Serv M/C - St, 4-7/8"	655129	Columbia Gas of Kentucky
Serv M/C - St, 5"	655130	Columbia Gas of Kentucky
Serv M/C - St, 5-1/2"	655133	Columbia Gas of Kentucky
Serv M/C - St, 5-3/16"	655131	Columbia Gas of Kentucky
Serv M/C - St, 5-5/8"	655134	Columbia Gas of Kentucky
Serv M/C - St, 6"	655136	Columbia Gas of Kentucky
Serv M/C - St, 6-1/4"	655170	Columbia Gas of Kentucky
Serv M/C - St, 6-5/8"	655137	Columbia Gas of Kentucky
Serv M/C - St, 7"	655138	Columbia Gas of Kentucky
Serv M/C - St, 7-5/8"	655139	Columbia Gas of Kentucky
Serv M/C - St, 8"	655140	Columbia Gas of Kentucky
Serv M/C - St, 8-5/8"	655142	Columbia Gas of Kentucky
Serv M/C - St, 1"	655110	Columbia Gas of Kentucky
Serv M/C - St, 1/2"	655106	Columbia Gas of Kentucky
Serv M/C - St, 10"	655145	Columbia Gas of Kentucky
Serv M/C - St, 10-5/8"	655146	Columbia Gas of Kentucky

retire_unit	external_retire_unit	company
Serv M/C - St, 11"	655148	Columbia Gas of Kentucky
Serv M/C - St, 1-1/2"	655115	Columbia Gas of Kentucky
Serv M/C - St, 1-1/4"	655112	Columbia Gas of Kentucky
Serv M/C - St, 12"	655150	Columbia Gas of Kentucky
Serv M/C - St, 13-3/8"	655152	Columbia Gas of Kentucky
Serv M/C - St, 14"	655154	Columbia Gas of Kentucky
Serv M/C - St, 16"	655156	Columbia Gas of Kentucky
Serv M/C - St, 18"	655157	Columbia Gas of Kentucky
Serv M/C - St, 20"	655158	Columbia Gas of Kentucky
Serv M/C - St, 24"	655160	Columbia Gas of Kentucky
Serv M/C - St, 3/4"	655108	Columbia Gas of Kentucky
Serv M/C - St, 36"	655166	Columbia Gas of Kentucky
Serv M/C - St, Less 2"	655198	Columbia Gas of Kentucky
Serv M/C - St, Less 3"	655196	Columbia Gas of Kentucky
Serv M/C S/Pi, Less 3"	655696	Columbia Gas of Kentucky
Serv M/C -Spi, 2-1/2"	655318	Columbia Gas of Kentucky
Serv M/C -Spi, 3"	655321	Columbia Gas of Kentucky
Serv M/C -Spi, 3-1/2"	655325	Columbia Gas of Kentucky
Serv M/C -Spi, 3-1/4"	655324	Columbia Gas of Kentucky
Serv M/C -Spi, 4"	655326	Columbia Gas of Kentucky
Serv M/C -Spi, 4-1/2"	655327	Columbia Gas of Kentucky
Serv M/C -Spi, 4-7/8"	655329	Columbia Gas of Kentucky
Serv M/C -Spi, 5"	655330	Columbia Gas of Kentucky
Serv M/C -Spi, 5-1/2"	655333	Columbia Gas of Kentucky
Serv M/C -Spi, 5-3/16"	655331	Columbia Gas of Kentucky
Serv M/C -Spi, 5-5/8"	655334	Columbia Gas of Kentucky
Serv M/C -Spi, 6"	655336	Columbia Gas of Kentucky
Serv M/C -Spi, 6-1/4"	655370	Columbia Gas of Kentucky
Serv M/C -Spi, 6-5/8"	655337	Columbia Gas of Kentucky
Serv M/C -Spi, 7"	655338	Columbia Gas of Kentucky
Serv M/C -Spi, 7-5/8"	655339	Columbia Gas of Kentucky
Serv M/C -Spi, 8"	655340	Columbia Gas of Kentucky
Serv M/C -Spi, 8-5/8"	655342	Columbia Gas of Kentucky
Serv M/C -Spi, 10"	655345	Columbia Gas of Kentucky
Serv M/C -Spi, 10-5/8"	655346	Columbia Gas of Kentucky
Serv M/C -Spi, 11"	655348	Columbia Gas of Kentucky
Serv M/C -Spi, 12"	655350	Columbia Gas of Kentucky
Serv M/C -Spi, 13-3/8"	655352	Columbia Gas of Kentucky
Serv M/C -Spi, 14"	655354	Columbia Gas of Kentucky
Serv M/C -Spi, 16"	655356	Columbia Gas of Kentucky
Serv M/C -Spi, 18"	655357	Columbia Gas of Kentucky
Serv M/C -Spi, 20"	655358	Columbia Gas of Kentucky
Serv M/C -Spi, 24"	655360	Columbia Gas of Kentucky
Serv M/C -Spi, 36"	655366	Columbia Gas of Kentucky
Serv M/C -Spi, Less 3"	655396	Columbia Gas of Kentucky
Serv M/M PI, 2-1/2"	655818	Columbia Gas of Kentucky
Serv M/M PI, 3"	655821	Columbia Gas of Kentucky
Serv M/M PI, 3-1/2"	655825	Columbia Gas of Kentucky
Serv M/M PI, 3-1/4"	655824	Columbia Gas of Kentucky
Serv M/M PI, 4"	655826	Columbia Gas of Kentucky
Serv M/M PI, 4-1/2"	655827	Columbia Gas of Kentucky
Serv M/M PI, 4-7/8"	655829	Columbia Gas of Kentucky
Serv M/M PI, 5"	655830	Columbia Gas of Kentucky



<u>retire_unit</u>	<u>external_retire_unit</u>	<u>company</u>
Serv M/M PI, 5-1/2"	655833	Columbia Gas of Kentucky
Serv M/M PI, 5-3/16"	655831	Columbia Gas of Kentucky
Serv M/M PI, 5-5/8"	655834	Columbia Gas of Kentucky
Serv M/M PI, 6"	655836	Columbia Gas of Kentucky
Serv M/M PI, 6-1/4"	655870	Columbia Gas of Kentucky
Serv M/M PI, 6-5/8"	655837	Columbia Gas of Kentucky
Serv M/M PI, 7"	655838	Columbia Gas of Kentucky
Serv M/M PI, 7-5/8"	655839	Columbia Gas of Kentucky
Serv M/M PI, 8"	655840	Columbia Gas of Kentucky
Serv M/M PI, 8-5/8"	655842	Columbia Gas of Kentucky
Serv M/M PI, 10"	655845	Columbia Gas of Kentucky
Serv M/M PI, 10-5/8"	655846	Columbia Gas of Kentucky
Serv M/M PI, 11"	655848	Columbia Gas of Kentucky
Serv M/M PI, 12"	655850	Columbia Gas of Kentucky
Serv M/M PI, 13-3/8"	655852	Columbia Gas of Kentucky
Serv M/M PI, 14"	655854	Columbia Gas of Kentucky
Serv M/M PI, 16"	655856	Columbia Gas of Kentucky
Serv M/M PI, 18"	655857	Columbia Gas of Kentucky
Serv M/M PI, 20"	655858	Columbia Gas of Kentucky
Serv M/M PI, 24"	655860	Columbia Gas of Kentucky
Serv M/M PI, 36"	655866	Columbia Gas of Kentucky
Serv M/M PI, Less 3"	655896	Columbia Gas of Kentucky
Serv M/M PI/Pvc, 2"	656016	Columbia Gas of Kentucky
Serv M/M PI/Pvc, 2-1/2"	656018	Columbia Gas of Kentucky
Serv M/M PI/Pvc, 3"	656021	Columbia Gas of Kentucky
Serv M/M PI/Pvc, 4"	656026	Columbia Gas of Kentucky
Serv M/M PI/Pvc, 5"	656030	Columbia Gas of Kentucky
Serv M/M PI/Pvc, 6"	656036	Columbia Gas of Kentucky
Serv M/M PI/Pvc, 7"	656038	Columbia Gas of Kentucky
Serv M/M PI/Pvc, 8"	656040	Columbia Gas of Kentucky
Serv M/M PI/Pvc, 10"	656045	Columbia Gas of Kentucky
Serv M/M PI/Pvc, 10-5/8"	656046	Columbia Gas of Kentucky
Serv M/M PI/Pvc, 11"	656048	Columbia Gas of Kentucky
Serv M/M PI/Pvc, 12"	656050	Columbia Gas of Kentucky
Serv M/M PI/Pvc, 13-3/8"	656052	Columbia Gas of Kentucky
Serv M/M PI/Pvc, 14"	656054	Columbia Gas of Kentucky
Serv M/M PI/Pvc, 16"	656056	Columbia Gas of Kentucky
Serv M/M PI/Pvc, 18"	656057	Columbia Gas of Kentucky
Serv M/M PI/Pvc, 20"	656058	Columbia Gas of Kentucky
Serv M/M PI/Pvc, 24"	656060	Columbia Gas of Kentucky
Serv M/M PI/Pvc, 36"	656066	Columbia Gas of Kentucky
Serv M/M PI/Pvc, Less 3"	656096	Columbia Gas of Kentucky
Serv M/M St, 2"	655916	Columbia Gas of Kentucky
Serv M/M St, 2-1/2"	655918	Columbia Gas of Kentucky
Serv M/M St, 3"	655921	Columbia Gas of Kentucky
Serv M/M St, 3-1/2"	655925	Columbia Gas of Kentucky
Serv M/M St, 3-1/4"	655924	Columbia Gas of Kentucky
Serv M/M St, 4"	655926	Columbia Gas of Kentucky
Serv M/M St, 4-1/2"	655927	Columbia Gas of Kentucky
Serv M/M St, 4-7/8"	655929	Columbia Gas of Kentucky
Serv M/M St, 5"	655930	Columbia Gas of Kentucky
Serv M/M St, 5-1/2"	655933	Columbia Gas of Kentucky
Serv M/M St, 5-3/16"	655931	Columbia Gas of Kentucky

<u>retire_unit</u>	<u>external_retire_unit</u>	<u>company</u>
Serv M/M St, 5-5/8"	655934	Columbia Gas of Kentucky
Serv M/M St, 6"	655936	Columbia Gas of Kentucky
Serv M/M St, 6-1/4"	655970	Columbia Gas of Kentucky
Serv M/M St, 6-5/8"	655937	Columbia Gas of Kentucky
Serv M/M St, 7"	655938	Columbia Gas of Kentucky
Serv M/M St, 7-5/8"	655939	Columbia Gas of Kentucky
Serv M/M St, 8"	655940	Columbia Gas of Kentucky
Serv M/M St, 8-5/8"	655942	Columbia Gas of Kentucky
Serv M/M St, 10"	655945	Columbia Gas of Kentucky
Serv M/M St, 10-5/8"	655946	Columbia Gas of Kentucky
Serv M/M St, 11"	655948	Columbia Gas of Kentucky
Serv M/M St, 12"	655950	Columbia Gas of Kentucky
Serv M/M St, 13-3/8"	655952	Columbia Gas of Kentucky
Serv M/M St, 14"	655954	Columbia Gas of Kentucky
Serv M/M St, 16"	655956	Columbia Gas of Kentucky
Serv M/M St, 18"	655957	Columbia Gas of Kentucky
Serv M/M St, 20"	655958	Columbia Gas of Kentucky
Serv M/M St, 24"	655960	Columbia Gas of Kentucky
Serv M/M St, 36"	655966	Columbia Gas of Kentucky
Serv M/M St, Less 3"	655996	Columbia Gas of Kentucky
Service Ssb Chan Rf	650000	Columbia Gas of Kentucky
Sewer & Drain Clean	810710	Columbia Gas of Kentucky
Sewerage System	189200	Columbia Gas of Kentucky
Shear Power Port	810716	Columbia Gas of Kentucky
Shelving (Metal)	262715	Columbia Gas of Kentucky
Shoring Unit	810712	Columbia Gas of Kentucky
Shredder	262717	Columbia Gas of Kentucky
Sign Electric	420850	Columbia Gas of Kentucky
Signaling Un Telecom	668000	Columbia Gas of Kentucky
Silencer, Vapor/Muff	669500	Columbia Gas of Kentucky
Silencers, B/D Mutes	669300	Columbia Gas of Kentucky
Silencers, Inline	669200	Columbia Gas of Kentucky
Silencers, Mu Muf/Sil	669100	Columbia Gas of Kentucky
Silencers, Snd Reduce	669400	Columbia Gas of Kentucky
Skid	810713	Columbia Gas of Kentucky
Sofa	262725	Columbia Gas of Kentucky
Sp Clean Assy Launch	670100	Columbia Gas of Kentucky
Sp Clean Assy Rcvr	670200	Columbia Gas of Kentucky
Speaker Phone	775200	Columbia Gas of Kentucky
Sprague 1	416718	Columbia Gas of Kentucky
Sprague 175	416755	Columbia Gas of Kentucky
Sprague 175r/M	416757	Columbia Gas of Kentucky
Sprague 175w/R	416756	Columbia Gas of Kentucky
Sprague 2	416726	Columbia Gas of Kentucky
Sprague 240	416758	Columbia Gas of Kentucky
Sprague 240w/R	416759	Columbia Gas of Kentucky
Sprague 250	416761	Columbia Gas of Kentucky
Sprague 250w/R	416763	Columbia Gas of Kentucky
Sprague 3	416730	Columbia Gas of Kentucky
Sprague 4a/675	416738	Columbia Gas of Kentucky
Sprague 5a/1000 5	416746	Columbia Gas of Kentucky
Sprayer Skid Mt W/T	810717	Columbia Gas of Kentucky
Ss Fitting PI, 1"	666510	Columbia Gas of Kentucky

<u>retire_unit</u>	<u>external_retire_unit</u>	<u>company</u>
Ss Fitting Pl, 1-1/2"	666515	Columbia Gas of Kentucky
Ss Fitting Pl, 1-1/4"	666512	Columbia Gas of Kentucky
Ss Fitting Pl, 1-3/8"	666514	Columbia Gas of Kentucky
Ss Fitting Pl, 2"	666516	Columbia Gas of Kentucky
Ss Fitting Pl, 2-1/2"	666518	Columbia Gas of Kentucky
Ss Fitting Pl, 3"	666521	Columbia Gas of Kentucky
Ss Fitting Pl, 3-1/2"	666525	Columbia Gas of Kentucky
Ss Fitting Pl, 3-1/4"	666524	Columbia Gas of Kentucky
Ss Fitting Pl, 4"	666526	Columbia Gas of Kentucky
Ss Fitting Pl, 4-1/2"	666527	Columbia Gas of Kentucky
Ss Fitting Pl, 4-7/8"	666529	Columbia Gas of Kentucky
Ss Fitting Pl, 5"	666530	Columbia Gas of Kentucky
Ss Fitting Pl, 5-1/2"	666533	Columbia Gas of Kentucky
Ss Fitting Pl, 5-3/16"	666531	Columbia Gas of Kentucky
Ss Fitting Pl, 5-5/8"	666534	Columbia Gas of Kentucky
Ss Fitting Pl, 6"	666536	Columbia Gas of Kentucky
Ss Fitting Pl, 6-1/4"	666570	Columbia Gas of Kentucky
Ss Fitting Pl, 6-5/8"	666537	Columbia Gas of Kentucky
Ss Fitting Pl, 7"	666538	Columbia Gas of Kentucky
Ss Fitting Pl, 7-5/8"	666539	Columbia Gas of Kentucky
Ss Fitting Pl, 8"	666540	Columbia Gas of Kentucky
Ss Fitting Pl, 8-5/8"	666542	Columbia Gas of Kentucky
Ss Fitting Pl, 10"	666545	Columbia Gas of Kentucky
Ss Fitting Pl, 10-5/8"	666546	Columbia Gas of Kentucky
Ss Fitting Pl, 11"	666548	Columbia Gas of Kentucky
Ss Fitting Pl, 12"	666550	Columbia Gas of Kentucky
Ss Fitting Pl, 13-3/8"	666552	Columbia Gas of Kentucky
Ss Fitting Pl, 14"	666554	Columbia Gas of Kentucky
Ss Fitting Pl, 16"	666556	Columbia Gas of Kentucky
Ss Fitting Pl, 18"	666557	Columbia Gas of Kentucky
Ss Fitting Pl, 20"	666558	Columbia Gas of Kentucky
Ss Fitting Pl, 24"	666560	Columbia Gas of Kentucky
Ss Fitting Pl, 36"	666566	Columbia Gas of Kentucky
Ss Fitting St, 1"	665510	Columbia Gas of Kentucky
Ss Fitting St, 1-1/2"	665515	Columbia Gas of Kentucky
Ss Fitting St, 1-1/4"	665512	Columbia Gas of Kentucky
Ss Fitting St, 1-3/8"	665514	Columbia Gas of Kentucky
Ss Fitting St, 2"	665516	Columbia Gas of Kentucky
Ss Fitting St, 2-1/2"	665518	Columbia Gas of Kentucky
Ss Fitting St, 3"	665521	Columbia Gas of Kentucky
Ss Fitting St, 3-1/2"	665525	Columbia Gas of Kentucky
Ss Fitting St, 3-1/4"	665524	Columbia Gas of Kentucky
Ss Fitting St, 4"	665526	Columbia Gas of Kentucky
Ss Fitting St, 4-1/2"	665527	Columbia Gas of Kentucky
Ss Fitting St, 4-7/8"	665529	Columbia Gas of Kentucky
Ss Fitting St, 5"	665530	Columbia Gas of Kentucky
Ss Fitting St, 5-1/2"	665533	Columbia Gas of Kentucky
Ss Fitting St, 5-3/16"	665531	Columbia Gas of Kentucky
Ss Fitting St, 5-5/8"	665534	Columbia Gas of Kentucky
Ss Fitting St, 6"	665536	Columbia Gas of Kentucky
Ss Fitting St, 6-1/4"	665570	Columbia Gas of Kentucky
Ss Fitting St, 6-5/8"	665537	Columbia Gas of Kentucky
Ss Fitting St, 7"	665538	Columbia Gas of Kentucky

<u>retire_unit</u>	<u>external_retire_unit</u>	<u>company</u>
Ss Fitting St, 7-5/8"	665539	Columbia Gas of Kentucky
Ss Fitting St, 8"	665540	Columbia Gas of Kentucky
Ss Fitting St, 8-5/8"	665542	Columbia Gas of Kentucky
Ss Fitting St, 10"	665545	Columbia Gas of Kentucky
Ss Fitting St, 10-5/8"	665546	Columbia Gas of Kentucky
Ss Fitting St, 11"	665548	Columbia Gas of Kentucky
Ss Fitting St, 12"	665550	Columbia Gas of Kentucky
Ss Fitting St, 13-3/8"	665552	Columbia Gas of Kentucky
Ss Fitting St, 14"	665554	Columbia Gas of Kentucky
Ss Fitting St, 16"	665556	Columbia Gas of Kentucky
Ss Fitting St, 18"	665557	Columbia Gas of Kentucky
Ss Fitting St, 20"	665558	Columbia Gas of Kentucky
Ss Fitting St, 24"	665560	Columbia Gas of Kentucky
Ss Fitting St, 36"	665566	Columbia Gas of Kentucky
Ss Sph Tee St, 1"	665610	Columbia Gas of Kentucky
Ss Sph Tee St, 1-1/2"	665615	Columbia Gas of Kentucky
Ss Sph Tee St, 1-1/4"	665612	Columbia Gas of Kentucky
Ss Sph Tee St, 1-3/8"	665614	Columbia Gas of Kentucky
Ss Sph Tee St, 2"	665616	Columbia Gas of Kentucky
Ss Sph Tee St, 2-1/2"	665618	Columbia Gas of Kentucky
Ss Sph Tee St, 3"	665621	Columbia Gas of Kentucky
Ss Sph Tee St, 3-1/2"	665625	Columbia Gas of Kentucky
Ss Sph Tee St, 3-1/4"	665624	Columbia Gas of Kentucky
Ss Sph Tee St, 4"	665626	Columbia Gas of Kentucky
Ss Sph Tee St, 4-1/2"	665627	Columbia Gas of Kentucky
Ss Sph Tee St, 4-7/8"	665629	Columbia Gas of Kentucky
Ss Sph Tee St, 5"	665630	Columbia Gas of Kentucky
Ss Sph Tee St, 5-1/2"	665633	Columbia Gas of Kentucky
Ss Sph Tee St, 5-3/16"	665631	Columbia Gas of Kentucky
Ss Sph Tee St, 5-5/8"	665634	Columbia Gas of Kentucky
Ss Sph Tee St, 6"	665636	Columbia Gas of Kentucky
Ss Sph Tee St, 6-1/4"	665670	Columbia Gas of Kentucky
Ss Sph Tee St, 6-5/8"	665637	Columbia Gas of Kentucky
Ss Sph Tee St, 7"	665638	Columbia Gas of Kentucky
Ss Sph Tee St, 7-5/8"	665639	Columbia Gas of Kentucky
Ss Sph Tee St, 8"	665640	Columbia Gas of Kentucky
Ss Sph Tee St, 8-5/8"	665642	Columbia Gas of Kentucky
Ss Sph Tee St, 10"	665645	Columbia Gas of Kentucky
Ss Sph Tee St, 10-5/8"	665646	Columbia Gas of Kentucky
Ss Sph Tee St, 11"	665648	Columbia Gas of Kentucky
Ss Sph Tee St, 12"	665650	Columbia Gas of Kentucky
Ss Sph Tee St, 13-3/8"	665652	Columbia Gas of Kentucky
Ss Sph Tee St, 14"	665654	Columbia Gas of Kentucky
Ss Sph Tee St, 16"	665656	Columbia Gas of Kentucky
Ss Sph Tee St, 18"	665657	Columbia Gas of Kentucky
Ss Sph Tee St, 20"	665658	Columbia Gas of Kentucky
Ss Sph Tee St, 24"	665660	Columbia Gas of Kentucky
Ss Sph Tee St, 36"	665666	Columbia Gas of Kentucky
Ss Tee 3w Pl, 1"	666710	Columbia Gas of Kentucky
Ss Tee 3w Pl, 1-1/2"	666715	Columbia Gas of Kentucky
Ss Tee 3w Pl, 1-1/4"	666712	Columbia Gas of Kentucky
Ss Tee 3w Pl, 1-3/8"	666714	Columbia Gas of Kentucky
Ss Tee 3w Pl, 2"	666716	Columbia Gas of Kentucky

<u>retire_unit</u>	<u>external_retire_unit</u>	<u>company</u>
Ss Tee 3w Pl, 2-1/2"	666718	Columbia Gas of Kentucky
Ss Tee 3w Pl, 3"	666721	Columbia Gas of Kentucky
Ss Tee 3w Pl, 3-1/2"	666725	Columbia Gas of Kentucky
Ss Tee 3w Pl, 3-1/4"	666724	Columbia Gas of Kentucky
Ss Tee 3w Pl, 4"	666726	Columbia Gas of Kentucky
Ss Tee 3w Pl, 4-1/2"	666727	Columbia Gas of Kentucky
Ss Tee 3w Pl, 4-7/8"	666729	Columbia Gas of Kentucky
Ss Tee 3w Pl, 5"	666730	Columbia Gas of Kentucky
Ss Tee 3w Pl, 5-1/2"	666733	Columbia Gas of Kentucky
Ss Tee 3w Pl, 5-3/16"	666731	Columbia Gas of Kentucky
Ss Tee 3w Pl, 5-5/8"	666734	Columbia Gas of Kentucky
Ss Tee 3w Pl, 6"	666736	Columbia Gas of Kentucky
Ss Tee 3w Pl, 6-1/4"	666770	Columbia Gas of Kentucky
Ss Tee 3w Pl, 6-5/8"	666737	Columbia Gas of Kentucky
Ss Tee 3w Pl, 7"	666738	Columbia Gas of Kentucky
Ss Tee 3w Pl, 7-5/8"	666739	Columbia Gas of Kentucky
Ss Tee 3w Pl, 8"	666740	Columbia Gas of Kentucky
Ss Tee 3w Pl, 8-5/8"	666742	Columbia Gas of Kentucky
Ss Tee 3w Pl, 10"	666745	Columbia Gas of Kentucky
Ss Tee 3w Pl, 10-5/8"	666746	Columbia Gas of Kentucky
Ss Tee 3w Pl, 11"	666748	Columbia Gas of Kentucky
Ss Tee 3w Pl, 12"	666750	Columbia Gas of Kentucky
Ss Tee 3w Pl, 13-3/8"	666752	Columbia Gas of Kentucky
Ss Tee 3w Pl, 14"	666754	Columbia Gas of Kentucky
Ss Tee 3w Pl, 16"	666756	Columbia Gas of Kentucky
Ss Tee 3w Pl, 18"	666757	Columbia Gas of Kentucky
Ss Tee 3w Pl, 20"	666758	Columbia Gas of Kentucky
Ss Tee 3w Pl, 24"	666760	Columbia Gas of Kentucky
Ss Tee 3w Pl, 36"	666766	Columbia Gas of Kentucky
Ss Tee 3w St, 1"	665710	Columbia Gas of Kentucky
Ss Tee 3w St, 1-1/2"	665715	Columbia Gas of Kentucky
Ss Tee 3w St, 1-1/4"	665712	Columbia Gas of Kentucky
Ss Tee 3w St, 1-1/8"	665711	Columbia Gas of Kentucky
Ss Tee 3w St, 1-3/8"	665714	Columbia Gas of Kentucky
Ss Tee 3w St, 2"	665716	Columbia Gas of Kentucky
Ss Tee 3w St, 2-1/2"	665718	Columbia Gas of Kentucky
Ss Tee 3w St, 2-9/16"	665719	Columbia Gas of Kentucky
Ss Tee 3w St, 3"	665721	Columbia Gas of Kentucky
Ss Tee 3w St, 3-1/2"	665725	Columbia Gas of Kentucky
Ss Tee 3w St, 3-1/4"	665724	Columbia Gas of Kentucky
Ss Tee 3w St, 4"	665726	Columbia Gas of Kentucky
Ss Tee 3w St, 4-1/2"	665727	Columbia Gas of Kentucky
Ss Tee 3w St, 4-7/8"	665729	Columbia Gas of Kentucky
Ss Tee 3w St, 5"	665730	Columbia Gas of Kentucky
Ss Tee 3w St, 5-1/2"	665733	Columbia Gas of Kentucky
Ss Tee 3w St, 5-3/16"	665731	Columbia Gas of Kentucky
Ss Tee 3w St, 5-5/8"	665734	Columbia Gas of Kentucky
Ss Tee 3w St, 6"	665736	Columbia Gas of Kentucky
Ss Tee 3w St, 6-1/4"	665770	Columbia Gas of Kentucky
Ss Tee 3w St, 6-5/8"	665737	Columbia Gas of Kentucky
Ss Tee 3w St, 7"	665738	Columbia Gas of Kentucky
Ss Tee 3w St, 7-5/8"	665739	Columbia Gas of Kentucky
Ss Tee 3w St, 8"	665740	Columbia Gas of Kentucky

<u>retire_unit</u>	<u>external_retire_unit</u>	<u>company</u>
Ss Tee 3w St, 8-5/8"	665742	Columbia Gas of Kentucky
Ss Tee 3w St, 10"	665745	Columbia Gas of Kentucky
Ss Tee 3w St, 10-5/8"	665746	Columbia Gas of Kentucky
Ss Tee 3w St, 11"	665748	Columbia Gas of Kentucky
Ss Tee 3w St, 12"	665750	Columbia Gas of Kentucky
Ss Tee 3w St, 13-3/8"	665752	Columbia Gas of Kentucky
Ss Tee 3w St, 14"	665754	Columbia Gas of Kentucky
Ss Tee 3w St, 16"	665756	Columbia Gas of Kentucky
Ss Tee 3w St, 18"	665757	Columbia Gas of Kentucky
Ss Tee 3w St, 20"	665758	Columbia Gas of Kentucky
Ss Tee 3w St, 24"	665760	Columbia Gas of Kentucky
Ss Tee 3w St, 36"	665766	Columbia Gas of Kentucky
Stack	680000	Columbia Gas of Kentucky
Stamp Mach Time Elec	262738	Columbia Gas of Kentucky
Stand	262740	Columbia Gas of Kentucky
Stand, Computer	262744	Columbia Gas of Kentucky
Stoppl Ftg St, 1"	665910	Columbia Gas of Kentucky
Stoppl Ftg St, 1-1/2"	665915	Columbia Gas of Kentucky
Stoppl Ftg St, 1-1/4"	665912	Columbia Gas of Kentucky
Stoppl Ftg St, 1-3/8"	665914	Columbia Gas of Kentucky
Stoppl Ftg St, 2"	665916	Columbia Gas of Kentucky
Stoppl Ftg St, 2-1/2"	665918	Columbia Gas of Kentucky
Stoppl Ftg St, 3"	665921	Columbia Gas of Kentucky
Stoppl Ftg St, 3-1/2"	665925	Columbia Gas of Kentucky
Stoppl Ftg St, 3-1/4"	665924	Columbia Gas of Kentucky
Stoppl Ftg St, 4"	665926	Columbia Gas of Kentucky
Stoppl Ftg St, 4-1/2"	665927	Columbia Gas of Kentucky
Stoppl Ftg St, 4-7/8"	665929	Columbia Gas of Kentucky
Stoppl Ftg St, 5"	665930	Columbia Gas of Kentucky
Stoppl Ftg St, 5-1/2"	665933	Columbia Gas of Kentucky
Stoppl Ftg St, 5-3/16"	665931	Columbia Gas of Kentucky
Stoppl Ftg St, 5-5/8"	665934	Columbia Gas of Kentucky
Stoppl Ftg St, 6"	665936	Columbia Gas of Kentucky
Stoppl Ftg St, 6-1/4"	665970	Columbia Gas of Kentucky
Stoppl Ftg St, 6-5/8"	665937	Columbia Gas of Kentucky
Stoppl Ftg St, 7"	665938	Columbia Gas of Kentucky
Stoppl Ftg St, 7-5/8"	665939	Columbia Gas of Kentucky
Stoppl Ftg St, 8"	665940	Columbia Gas of Kentucky
Stoppl Ftg St, 8-5/8"	665942	Columbia Gas of Kentucky
Stoppl Ftg St, 10"	665945	Columbia Gas of Kentucky
Stoppl Ftg St, 10-5/8"	665946	Columbia Gas of Kentucky
Stoppl Ftg St, 11"	665948	Columbia Gas of Kentucky
Stoppl Ftg St, 12"	665950	Columbia Gas of Kentucky
Stoppl Ftg St, 13-3/8"	665952	Columbia Gas of Kentucky
Stoppl Ftg St, 14"	665954	Columbia Gas of Kentucky
Stoppl Ftg St, 16"	665956	Columbia Gas of Kentucky
Stoppl Ftg St, 18"	665957	Columbia Gas of Kentucky
Stoppl Ftg St, 20"	665958	Columbia Gas of Kentucky
Stoppl Ftg St, 24"	665960	Columbia Gas of Kentucky
Stoppl Ftg St, 36"	665966	Columbia Gas of Kentucky
Stor Lease W/Prod Rt	361160	Columbia Gas of Kentucky
Storage Cascades	109020	Columbia Gas of Kentucky
Storage Lease Only	361150	Columbia Gas of Kentucky

<u>retire_unit</u>	<u>external_retire_unit</u>	<u>company</u>
Storage Rights	690000	Columbia Gas of Kentucky
Storage Tank Port	810724	Columbia Gas of Kentucky
Structure Minor Al	695100	Columbia Gas of Kentucky
Structure Minor Fr	695200	Columbia Gas of Kentucky
Structure Minor Ma	695300	Columbia Gas of Kentucky
Structure Minor Ot	695600	Columbia Gas of Kentucky
Structure Minor Pl	695400	Columbia Gas of Kentucky
Structure Minor St	695500	Columbia Gas of Kentucky
Substructure	705000	Columbia Gas of Kentucky
Superior 10	416438	Columbia Gas of Kentucky
Superior 11c	416442	Columbia Gas of Kentucky
Superior 20	416446	Columbia Gas of Kentucky
Superior 25c	416450	Columbia Gas of Kentucky
Superior 30	416458	Columbia Gas of Kentucky
Superior 40c	416462	Columbia Gas of Kentucky
Superior 5	416434	Columbia Gas of Kentucky
Superior 60	416466	Columbia Gas of Kentucky
Superior Al175a	416829	Columbia Gas of Kentucky
Superior Al250	416830	Columbia Gas of Kentucky
Superior Al340	416831	Columbia Gas of Kentucky
Superstructure Al	735100	Columbia Gas of Kentucky
Superstructure Fr	735200	Columbia Gas of Kentucky
Superstructure Ma	735300	Columbia Gas of Kentucky
Superstructure Ot	735600	Columbia Gas of Kentucky
Superstructure Pl	735400	Columbia Gas of Kentucky
Superstructure St	735500	Columbia Gas of Kentucky
Swbd Telephone	750000	Columbia Gas of Kentucky
Switch Eia	120017	Columbia Gas of Kentucky
T-230 12"Sensus Turbine Meter	416962	Columbia Gas of Kentucky
Table	262770	Columbia Gas of Kentucky
Tamper	810798	Columbia Gas of Kentucky
Tank Air	760100	Columbia Gas of Kentucky
Tank Brine	760200	Columbia Gas of Kentucky
Tank Gasoline	760700	Columbia Gas of Kentucky
Tank Iso-Butane	761200	Columbia Gas of Kentucky
Tank LNG-Holding	761100	Columbia Gas of Kentucky
Tank LNG-Processing	761400	Columbia Gas of Kentucky
Tank Oil	760300	Columbia Gas of Kentucky
Tank Other	760600	Columbia Gas of Kentucky
Tank Prop Stationary	760400	Columbia Gas of Kentucky
Tank Propane Trk/Mtd	760800	Columbia Gas of Kentucky
Tank Truck Rack	390300	Columbia Gas of Kentucky
Tank Water	760500	Columbia Gas of Kentucky
Tank Water/Glycol	761300	Columbia Gas of Kentucky
Tap & Plug Equip	810804	Columbia Gas of Kentucky
Tap/Lat Conn, 1/4"	763003	Columbia Gas of Kentucky
Tap/Lat Conn, 1/8"	763001	Columbia Gas of Kentucky
Tap/Lat Conn, 3/16"	763002	Columbia Gas of Kentucky
Tap/Lat Conn, 3/4"	763008	Columbia Gas of Kentucky
Tap/Lat Conn, 3/8"	763005	Columbia Gas of Kentucky
Tap/Lat Conn, 5/16"	763004	Columbia Gas of Kentucky
Tap/Lat Conn, 5/8"	763007	Columbia Gas of Kentucky
Tap/Lat Conn, 1"	763010	Columbia Gas of Kentucky

<u>retire_unit</u>	<u>external_retire_unit</u>	<u>company</u>
Tap/Lat Conn, 1-1/2"	763015	Columbia Gas of Kentucky
Tap/Lat Conn, 1-1/4"	763012	Columbia Gas of Kentucky
Tap/Lat Conn, 1-3/8"	763014	Columbia Gas of Kentucky
Tap/Lat Conn, 12"	763050	Columbia Gas of Kentucky
Tap/Lat Conn, 2"	763016	Columbia Gas of Kentucky
Tap/Lat Conn, 3"	763021	Columbia Gas of Kentucky
Tap/Lat Conn, 4"	763026	Columbia Gas of Kentucky
Tape Storage	120012	Columbia Gas of Kentucky
Taper Attachment	810802	Columbia Gas of Kentucky
Telebinocular	420930	Columbia Gas of Kentucky
Teleconferencing System	763000	Columbia Gas of Kentucky
Telemetering Receiver	765000	Columbia Gas of Kentucky
Telemetering Transmt	770000	Columbia Gas of Kentucky
Telephone Recorder	262785	Columbia Gas of Kentucky
Tensile Testing Mach	355635	Columbia Gas of Kentucky
Termina Unit Telecom	786000	Columbia Gas of Kentucky
Test Manifold	810807	Columbia Gas of Kentucky
Tester	355000	Columbia Gas of Kentucky
Tester Ammeter	355720	Columbia Gas of Kentucky
Tester Battery	355725	Columbia Gas of Kentucky
Tester Brake	355730	Columbia Gas of Kentucky
Tester Circuit	355735	Columbia Gas of Kentucky
Tester Colori-Co2	355740	Columbia Gas of Kentucky
Tester Combustion	355745	Columbia Gas of Kentucky
Tester Deadweight	355750	Columbia Gas of Kentucky
Tester Dwell	355760	Columbia Gas of Kentucky
Tester Gravitomer	355770	Columbia Gas of Kentucky
Tester Hardness	355775	Columbia Gas of Kentucky
Tester Headlight	355780	Columbia Gas of Kentucky
Tester Oil Portable	355783	Columbia Gas of Kentucky
Tester Simpson	355785	Columbia Gas of Kentucky
Tester Sound & Vibra	355787	Columbia Gas of Kentucky
Tester Starter	355790	Columbia Gas of Kentucky
Tester Tachometer	355795	Columbia Gas of Kentucky
Tester Torque Wrench	355797	Columbia Gas of Kentucky
Tester Valve Spring	355810	Columbia Gas of Kentucky
Tester Velocity	355815	Columbia Gas of Kentucky
Tester Volt Ampere	355820	Columbia Gas of Kentucky
Testing Plug	810809	Columbia Gas of Kentucky
Thermometer Digital	355828	Columbia Gas of Kentucky
Tickometer	262790	Columbia Gas of Kentucky
Tin No 3	416913	Columbia Gas of Kentucky
Tin No 5	416900	Columbia Gas of Kentucky
Tin No 10	416901	Columbia Gas of Kentucky
Tin No 11	416902	Columbia Gas of Kentucky
Tin No 20	416903	Columbia Gas of Kentucky
Tin No 25	416904	Columbia Gas of Kentucky
Tin No 30	416905	Columbia Gas of Kentucky
Tin No 40	416906	Columbia Gas of Kentucky
Tin No 45	416907	Columbia Gas of Kentucky
Tin No 60	416908	Columbia Gas of Kentucky
Tin No 80b	416910	Columbia Gas of Kentucky
Tin No 150	416909	Columbia Gas of Kentucky



<u>retire_unit</u>	<u>external_retire_unit</u>	<u>company</u>
Tin No 250b	416911	Columbia Gas of Kentucky
Tin No 500b	416912	Columbia Gas of Kentucky
Tire Repair Equip	810818	Columbia Gas of Kentucky
Tobey 1	416836	Columbia Gas of Kentucky
Tobey 2	416840	Columbia Gas of Kentucky
Tobey 4	416848	Columbia Gas of Kentucky
Tobey A/B	416832	Columbia Gas of Kentucky
Tone Pagers	438100	Columbia Gas of Kentucky
Tone Receiver	795100	Columbia Gas of Kentucky
Tone Transmitter	800100	Columbia Gas of Kentucky
Total Energy Unit, Packaged	813000	Columbia Gas of Kentucky
Tower Telecomm	815000	Columbia Gas of Kentucky
Tracing Bd Glasstop	262793	Columbia Gas of Kentucky
Tractor	295400	Columbia Gas of Kentucky
Tractor W/Attachment	810826	Columbia Gas of Kentucky
Trailer - Flat	825511	Columbia Gas of Kentucky
Trailer 11 Ton & Ovr	825530	Columbia Gas of Kentucky
Trailer 3 To 10 Ton	825520	Columbia Gas of Kentucky
Trailer For Shoring	810828	Columbia Gas of Kentucky
Trailer Under 3 Ton	825510	Columbia Gas of Kentucky
Trailer-1000 Or Less	825000	Columbia Gas of Kentucky
Transducers, Cur To Pres	830700	Columbia Gas of Kentucky
Transducers, Diff Pres	830100	Columbia Gas of Kentucky
Transducers, Gravity	830500	Columbia Gas of Kentucky
Transducers, Static Pres	830200	Columbia Gas of Kentucky
Transducers, Temperature	830300	Columbia Gas of Kentucky
Transformer	835000	Columbia Gas of Kentucky
Transformer C/V	262805	Columbia Gas of Kentucky
Transit	810830	Columbia Gas of Kentucky
Transmitter, Microwave	845000	Columbia Gas of Kentucky
Trencher	810838	Columbia Gas of Kentucky
Trestle	848000	Columbia Gas of Kentucky
Tripod	420987	Columbia Gas of Kentucky
Truck Mounted Equipm	295700	Columbia Gas of Kentucky
Tubing, Well, 3/4"	851008	Columbia Gas of Kentucky
Tubing, Well, 1"	851010	Columbia Gas of Kentucky
Tubing, Well, 1-1/2"	851015	Columbia Gas of Kentucky
Tubing, Well, 1-1/4"	851012	Columbia Gas of Kentucky
Tubing, Well, 1-3/8"	851014	Columbia Gas of Kentucky
Tubing, Well, 2"	851016	Columbia Gas of Kentucky
Tubing, Well, 2-1/2"	851018	Columbia Gas of Kentucky
Tubing, Well, 3"	851021	Columbia Gas of Kentucky
Tubing, Well, 3-1/2"	851025	Columbia Gas of Kentucky
Tubing, Well, 3-1/4"	851024	Columbia Gas of Kentucky
Tubing, Well, 4"	851026	Columbia Gas of Kentucky
Typewriter	262825	Columbia Gas of Kentucky
Unknown 655215	655215	Columbia Gas of Kentucky
Utility Easement	361340	Columbia Gas of Kentucky
Utility Service, Electric	860100	Columbia Gas of Kentucky
Utility Service, Water	860200	Columbia Gas of Kentucky
Vacuum - Sweeper	810176	Columbia Gas of Kentucky
Valv P Ball, 1"	892110	Columbia Gas of Kentucky
Valv P Ball, 1-1/2"	892115	Columbia Gas of Kentucky

<u>retire_unit</u>	<u>external_retire_unit</u>	<u>company</u>
Valv P Ball, 1-1/4"	892112	Columbia Gas of Kentucky
Valv P Ball, 1-3/8"	892114	Columbia Gas of Kentucky
Valv P Ball, 2"	892116	Columbia Gas of Kentucky
Valv P Ball, 2-1/2"	892118	Columbia Gas of Kentucky
Valv P Ball, 3"	892121	Columbia Gas of Kentucky
Valv P Ball, 3-1/2"	892125	Columbia Gas of Kentucky
Valv P Ball, 3-1/4"	892124	Columbia Gas of Kentucky
Valv P Ball, 4"	892126	Columbia Gas of Kentucky
Valv P Ball, 4-1/2"	892127	Columbia Gas of Kentucky
Valv P Ball, 4-7/8"	892129	Columbia Gas of Kentucky
Valv P Ball, 5"	892130	Columbia Gas of Kentucky
Valv P Ball, 5-1/2"	892133	Columbia Gas of Kentucky
Valv P Ball, 5-3/16"	892131	Columbia Gas of Kentucky
Valv P Ball, 5-5/8"	892134	Columbia Gas of Kentucky
Valv P Ball, 6"	892136	Columbia Gas of Kentucky
Valv P Ball, 6-1/4"	892170	Columbia Gas of Kentucky
Valv P Ball, 6-5/8"	892137	Columbia Gas of Kentucky
Valv P Ball, 7"	892138	Columbia Gas of Kentucky
Valv P Ball, 7-5/8"	892139	Columbia Gas of Kentucky
Valv P Ball, 8"	892140	Columbia Gas of Kentucky
Valv P Ball, 8-5/8"	892142	Columbia Gas of Kentucky
Valv P Ball, 10"	892145	Columbia Gas of Kentucky
Valv P Ball, 10-5/8"	892146	Columbia Gas of Kentucky
Valv P Ball, 11"	892148	Columbia Gas of Kentucky
Valv P Ball, 12"	892150	Columbia Gas of Kentucky
Valv P Ball, 13-3/8"	892152	Columbia Gas of Kentucky
Valv P Ball, 14"	892154	Columbia Gas of Kentucky
Valv P Ball, 16"	892156	Columbia Gas of Kentucky
Valv P Ball, 18"	892157	Columbia Gas of Kentucky
Valv P Ball, 20"	892158	Columbia Gas of Kentucky
Valv P Ball, 24"	892160	Columbia Gas of Kentucky
Valv P Ball, 36"	892166	Columbia Gas of Kentucky
Valv P Plug, 1"	892710	Columbia Gas of Kentucky
Valv P Plug, 1-1/2"	892715	Columbia Gas of Kentucky
Valv P Plug, 1-1/4"	892712	Columbia Gas of Kentucky
Valv P Plug, 1-3/8"	892714	Columbia Gas of Kentucky
Valv P Plug, 2"	892716	Columbia Gas of Kentucky
Valv P Plug, 2-1/2"	892718	Columbia Gas of Kentucky
Valv P Plug, 3"	892721	Columbia Gas of Kentucky
Valv P Plug, 3-1/2"	892725	Columbia Gas of Kentucky
Valv P Plug, 3-1/4"	892724	Columbia Gas of Kentucky
Valv P Plug, 4"	892726	Columbia Gas of Kentucky
Valv P Plug, 4-1/2"	892727	Columbia Gas of Kentucky
Valv P Plug, 4-7/8"	892729	Columbia Gas of Kentucky
Valv P Plug, 5"	892730	Columbia Gas of Kentucky
Valv P Plug, 5-1/2"	892733	Columbia Gas of Kentucky
Valv P Plug, 5-3/16"	892731	Columbia Gas of Kentucky
Valv P Plug, 5-5/8"	892734	Columbia Gas of Kentucky
Valv P Plug, 6"	892736	Columbia Gas of Kentucky
Valv P Plug, 6-1/4"	892770	Columbia Gas of Kentucky
Valv P Plug, 6-5/8"	892737	Columbia Gas of Kentucky
Valv P Plug, 7"	892738	Columbia Gas of Kentucky
Valv P Plug, 7-5/8"	892739	Columbia Gas of Kentucky

<u>retire_unit</u>	<u>external_retire_unit</u>	<u>company</u>
Valv P Plug, 8"	892740	Columbia Gas of Kentucky
Valv P Plug, 8-5/8"	892742	Columbia Gas of Kentucky
Valv P Plug, 10"	892745	Columbia Gas of Kentucky
Valv P Plug, 10-5/8"	892746	Columbia Gas of Kentucky
Valv P Plug, 11"	892748	Columbia Gas of Kentucky
Valv P Plug, 12"	892750	Columbia Gas of Kentucky
Valv P Plug, 13-3/8"	892752	Columbia Gas of Kentucky
Valv P Plug, 14"	892754	Columbia Gas of Kentucky
Valv P Plug, 16"	892756	Columbia Gas of Kentucky
Valv P Plug, 18"	892757	Columbia Gas of Kentucky
Valv P Plug, 20"	892758	Columbia Gas of Kentucky
Valv P Plug, 24"	892760	Columbia Gas of Kentucky
Valv P Plug, 36"	892766	Columbia Gas of Kentucky
Valve Ball, 56"	890176	Columbia Gas of Kentucky
Valve Operator	895000	Columbia Gas of Kentucky
Valve Repair/Test Eq	810906	Columbia Gas of Kentucky
Valve Setting, 1/4"	900003	Columbia Gas of Kentucky
Valve Setting, 1/8"	900001	Columbia Gas of Kentucky
Valve Setting, 3/16"	900002	Columbia Gas of Kentucky
Valve Setting, 3/4"	900008	Columbia Gas of Kentucky
Valve Setting, 3/8"	900005	Columbia Gas of Kentucky
Valve Setting, 5/16"	900004	Columbia Gas of Kentucky
Valve Setting, 5/8"	900007	Columbia Gas of Kentucky
Valve Setting, 1"	900010	Columbia Gas of Kentucky
Valve Setting, 1-1/2"	900015	Columbia Gas of Kentucky
Valve Setting, 1-1/4"	900012	Columbia Gas of Kentucky
Valve Setting, 1-3/8"	900014	Columbia Gas of Kentucky
Valve Setting, 2"	900016	Columbia Gas of Kentucky
Valve Setting, 2-1/2"	900018	Columbia Gas of Kentucky
Valve Setting, 3"	900021	Columbia Gas of Kentucky
Valve Setting, 3-1/2"	900025	Columbia Gas of Kentucky
Valve Setting, 3-1/4"	900024	Columbia Gas of Kentucky
Valve Setting, 4"	900026	Columbia Gas of Kentucky
Valve Setting, 4-1/2"	900027	Columbia Gas of Kentucky
Valve Setting, 4-7/8"	900029	Columbia Gas of Kentucky
Valve Setting, 5"	900030	Columbia Gas of Kentucky
Valve Setting, 5-1/2"	900033	Columbia Gas of Kentucky
Valve Setting, 5-3/16"	900031	Columbia Gas of Kentucky
Valve Setting, 5-5/8"	900034	Columbia Gas of Kentucky
Valve Setting, 6"	900036	Columbia Gas of Kentucky
Valve Setting, 6-1/4"	900070	Columbia Gas of Kentucky
Valve Setting, 6-5/8"	900037	Columbia Gas of Kentucky
Valve Setting, 7"	900038	Columbia Gas of Kentucky
Valve Setting, 7-5/8"	900039	Columbia Gas of Kentucky
Valve Setting, 8"	900040	Columbia Gas of Kentucky
Valve Setting, 8-5/8"	900042	Columbia Gas of Kentucky
Valve Setting, 10"	900045	Columbia Gas of Kentucky
Valve Setting, 10-5/8"	900046	Columbia Gas of Kentucky
Valve Setting, 11"	900048	Columbia Gas of Kentucky
Valve Setting, 12"	900050	Columbia Gas of Kentucky
Valve Setting, 13-3/8"	900052	Columbia Gas of Kentucky
Valve Setting, 14"	900054	Columbia Gas of Kentucky
Valve Setting, 16"	900056	Columbia Gas of Kentucky

<u>retire_unit</u>	<u>external_retire_unit</u>	<u>company</u>
Valve Setting, 18"	900057	Columbia Gas of Kentucky
Valve Setting, 20"	900058	Columbia Gas of Kentucky
Valve Setting, 24"	900060	Columbia Gas of Kentucky
Valve Setting, 36"	900066	Columbia Gas of Kentucky
Valve Setting, 54"	900075	Columbia Gas of Kentucky
Valve Setting, 56"	900076	Columbia Gas of Kentucky
Valve Setting, 58"	900077	Columbia Gas of Kentucky
Valve Setting, 60"	900078	Columbia Gas of Kentucky
Valve Setting, 62"	900079	Columbia Gas of Kentucky
Valve Setting, 64"	900080	Columbia Gas of Kentucky
Valve Setting, 66"	900081	Columbia Gas of Kentucky
Valve Setting, 68"	900082	Columbia Gas of Kentucky
Valve Setting, 70"	900083	Columbia Gas of Kentucky
Valve Setting, Less 2"	900098	Columbia Gas of Kentucky
Valve, Ball 3/4"	890108	Columbia Gas of Kentucky
Valve, Ball, 1"	890110	Columbia Gas of Kentucky
Valve, Ball, 1-1/2"	890115	Columbia Gas of Kentucky
Valve, Ball, 1-1/4"	890112	Columbia Gas of Kentucky
Valve, Ball, 1-3/8"	890114	Columbia Gas of Kentucky
Valve, Ball, 2"	890116	Columbia Gas of Kentucky
Valve, Ball, 2-1/2"	890118	Columbia Gas of Kentucky
Valve, Ball, 3"	890121	Columbia Gas of Kentucky
Valve, Ball, 3-1/2"	890125	Columbia Gas of Kentucky
Valve, Ball, 3-1/4"	890124	Columbia Gas of Kentucky
Valve, Ball, 4"	890126	Columbia Gas of Kentucky
Valve, Ball, 4-1/2"	890127	Columbia Gas of Kentucky
Valve, Ball, 4-7/8"	890129	Columbia Gas of Kentucky
Valve, Ball, 5"	890130	Columbia Gas of Kentucky
Valve, Ball, 5-1/2"	890133	Columbia Gas of Kentucky
Valve, Ball, 5-3/16"	890131	Columbia Gas of Kentucky
Valve, Ball, 5-5/8"	890134	Columbia Gas of Kentucky
Valve, Ball, 6"	890136	Columbia Gas of Kentucky
Valve, Ball, 6-1/4"	890170	Columbia Gas of Kentucky
Valve, Ball, 6-5/8"	890137	Columbia Gas of Kentucky
Valve, Ball, 7"	890138	Columbia Gas of Kentucky
Valve, Ball, 7-5/8"	890139	Columbia Gas of Kentucky
Valve, Ball, 8"	890140	Columbia Gas of Kentucky
Valve, Ball, 8-5/8"	890142	Columbia Gas of Kentucky
Valve, Ball, 10"	890145	Columbia Gas of Kentucky
Valve, Ball, 10-5/8"	890146	Columbia Gas of Kentucky
Valve, Ball, 11"	890148	Columbia Gas of Kentucky
Valve, Ball, 12"	890150	Columbia Gas of Kentucky
Valve, Ball, 13-3/8"	890152	Columbia Gas of Kentucky
Valve, Ball, 14"	890154	Columbia Gas of Kentucky
Valve, Ball, 16"	890156	Columbia Gas of Kentucky
Valve, Ball, 18"	890157	Columbia Gas of Kentucky
Valve, Ball, 20"	890158	Columbia Gas of Kentucky
Valve, Ball, 24"	890160	Columbia Gas of Kentucky
Valve, Ball, 36"	890166	Columbia Gas of Kentucky
Valve, Butrfly, 1"	890210	Columbia Gas of Kentucky
Valve, Butrfly, 1-1/2"	890215	Columbia Gas of Kentucky
Valve, Butrfly, 1-1/4"	890212	Columbia Gas of Kentucky
Valve, Butrfly, 1-3/8"	890214	Columbia Gas of Kentucky

<u>retire_unit</u>	<u>external_retire_unit</u>	<u>company</u>
Valve, Butrfly, 2"	890216	Columbia Gas of Kentucky
Valve, Butrfly, 2-1/2"	890218	Columbia Gas of Kentucky
Valve, Butrfly, 3"	890221	Columbia Gas of Kentucky
Valve, Butrfly, 3-1/2"	890225	Columbia Gas of Kentucky
Valve, Butrfly, 3-1/4"	890224	Columbia Gas of Kentucky
Valve, Butrfly, 4"	890226	Columbia Gas of Kentucky
Valve, Butrfly, 4-1/2"	890227	Columbia Gas of Kentucky
Valve, Butrfly, 4-7/8"	890229	Columbia Gas of Kentucky
Valve, Butrfly, 5"	890230	Columbia Gas of Kentucky
Valve, Butrfly, 5-1/2"	890233	Columbia Gas of Kentucky
Valve, Butrfly, 5-3/16"	890231	Columbia Gas of Kentucky
Valve, Butrfly, 5-5/8"	890234	Columbia Gas of Kentucky
Valve, Butrfly, 6"	890236	Columbia Gas of Kentucky
Valve, Butrfly, 6-1/4"	890270	Columbia Gas of Kentucky
Valve, Butrfly, 6-5/8"	890237	Columbia Gas of Kentucky
Valve, Butrfly, 7"	890238	Columbia Gas of Kentucky
Valve, Butrfly, 7-5/8"	890239	Columbia Gas of Kentucky
Valve, Butrfly, 8"	890240	Columbia Gas of Kentucky
Valve, Butrfly, 8-5/8"	890242	Columbia Gas of Kentucky
Valve, Butrfly, 10"	890245	Columbia Gas of Kentucky
Valve, Butrfly, 10-5/8"	890246	Columbia Gas of Kentucky
Valve, Butrfly, 11"	890248	Columbia Gas of Kentucky
Valve, Butrfly, 12"	890250	Columbia Gas of Kentucky
Valve, Butrfly, 13-3/8"	890252	Columbia Gas of Kentucky
Valve, Butrfly, 14"	890254	Columbia Gas of Kentucky
Valve, Butrfly, 16"	890256	Columbia Gas of Kentucky
Valve, Butrfly, 18"	890257	Columbia Gas of Kentucky
Valve, Butrfly, 20"	890258	Columbia Gas of Kentucky
Valve, Butrfly, 24"	890260	Columbia Gas of Kentucky
Valve, Butrfly, 36"	890266	Columbia Gas of Kentucky
Valve, Check, 1"	890410	Columbia Gas of Kentucky
Valve, Check, 1-1/2"	890415	Columbia Gas of Kentucky
Valve, Check, 1-1/4"	890412	Columbia Gas of Kentucky
Valve, Check, 1-3/8"	890414	Columbia Gas of Kentucky
Valve, Check, 2"	890416	Columbia Gas of Kentucky
Valve, Check, 2-1/2"	890418	Columbia Gas of Kentucky
Valve, Check, 3"	890421	Columbia Gas of Kentucky
Valve, Check, 3-1/2"	890425	Columbia Gas of Kentucky
Valve, Check, 3-1/4"	890424	Columbia Gas of Kentucky
Valve, Check, 4"	890426	Columbia Gas of Kentucky
Valve, Check, 4-1/2"	890427	Columbia Gas of Kentucky
Valve, Check, 4-7/8"	890429	Columbia Gas of Kentucky
Valve, Check, 5"	890430	Columbia Gas of Kentucky
Valve, Check, 5-1/2"	890433	Columbia Gas of Kentucky
Valve, Check, 5-3/16"	890431	Columbia Gas of Kentucky
Valve, Check, 5-5/8"	890434	Columbia Gas of Kentucky
Valve, Check, 6"	890436	Columbia Gas of Kentucky
Valve, Check, 6-1/4"	890470	Columbia Gas of Kentucky
Valve, Check, 6-5/8"	890437	Columbia Gas of Kentucky
Valve, Check, 7"	890438	Columbia Gas of Kentucky
Valve, Check, 7-5/8"	890439	Columbia Gas of Kentucky
Valve, Check, 8"	890440	Columbia Gas of Kentucky
Valve, Check, 8-5/8"	890442	Columbia Gas of Kentucky

<u>retire_unit</u>	<u>external_retire_unit</u>	<u>company</u>
Valve, Check, 10"	890445	Columbia Gas of Kentucky
Valve, Check, 10-5/8"	890446	Columbia Gas of Kentucky
Valve, Check, 11"	890448	Columbia Gas of Kentucky
Valve, Check, 12"	890450	Columbia Gas of Kentucky
Valve, Check, 13-3/8"	890452	Columbia Gas of Kentucky
Valve, Check, 14"	890454	Columbia Gas of Kentucky
Valve, Check, 16"	890456	Columbia Gas of Kentucky
Valve, Check, 18"	890457	Columbia Gas of Kentucky
Valve, Check, 20"	890458	Columbia Gas of Kentucky
Valve, Check, 24"	890460	Columbia Gas of Kentucky
Valve, Check, 36"	890466	Columbia Gas of Kentucky
Valve, Curb, 1"	890910	Columbia Gas of Kentucky
Valve, Curb, 1-1/2"	890915	Columbia Gas of Kentucky
Valve, Curb, 1-1/4"	890912	Columbia Gas of Kentucky
Valve, Curb, 1-3/8"	890914	Columbia Gas of Kentucky
Valve, Curb, 2"	890916	Columbia Gas of Kentucky
Valve, Curb, 2-1/2"	890918	Columbia Gas of Kentucky
Valve, Curb, 3"	890921	Columbia Gas of Kentucky
Valve, Curb, 3-1/2"	890925	Columbia Gas of Kentucky
Valve, Curb, 3-1/4"	890924	Columbia Gas of Kentucky
Valve, Curb, 4"	890926	Columbia Gas of Kentucky
Valve, Curb, 4-1/2"	890927	Columbia Gas of Kentucky
Valve, Curb, 4-7/8"	890929	Columbia Gas of Kentucky
Valve, Curb, 5"	890930	Columbia Gas of Kentucky
Valve, Curb, 5-1/2"	890933	Columbia Gas of Kentucky
Valve, Curb, 5-3/16"	890931	Columbia Gas of Kentucky
Valve, Curb, 5-5/8"	890934	Columbia Gas of Kentucky
Valve, Curb, 6"	890936	Columbia Gas of Kentucky
Valve, Curb, 6-1/4"	890970	Columbia Gas of Kentucky
Valve, Curb, 6-5/8"	890937	Columbia Gas of Kentucky
Valve, Curb, 7"	890938	Columbia Gas of Kentucky
Valve, Curb, 7-5/8"	890939	Columbia Gas of Kentucky
Valve, Curb, 8"	890940	Columbia Gas of Kentucky
Valve, Curb, 8-5/8"	890942	Columbia Gas of Kentucky
Valve, Curb, 10"	890945	Columbia Gas of Kentucky
Valve, Curb, 10-3/5"	890947	Columbia Gas of Kentucky
Valve, Curb, 10-5/8"	890946	Columbia Gas of Kentucky
Valve, Curb, 11"	890948	Columbia Gas of Kentucky
Valve, Curb, 12"	890950	Columbia Gas of Kentucky
Valve, Curb, 13-3/8"	890952	Columbia Gas of Kentucky
Valve, Curb, 14"	890954	Columbia Gas of Kentucky
Valve, Curb, 16"	890956	Columbia Gas of Kentucky
Valve, Curb, 18"	890957	Columbia Gas of Kentucky
Valve, Curb, 20"	890958	Columbia Gas of Kentucky
Valve, Curb, 24"	890960	Columbia Gas of Kentucky
Valve, Curb, 36"	890966	Columbia Gas of Kentucky
Valve, Gate, 1"	890510	Columbia Gas of Kentucky
Valve, Gate, 1-1/2"	890515	Columbia Gas of Kentucky
Valve, Gate, 1-1/4"	890512	Columbia Gas of Kentucky
Valve, Gate, 1-1/8"	890511	Columbia Gas of Kentucky
Valve, Gate, 1-3/8"	890514	Columbia Gas of Kentucky
Valve, Gate, 2"	890516	Columbia Gas of Kentucky
Valve, Gate, 2-1/2"	890518	Columbia Gas of Kentucky

<u>retire_unit</u>	<u>external_retire_unit</u>	<u>company</u>
Valve, Gate, 3"	890521	Columbia Gas of Kentucky
Valve, Gate, 3-1/2"	890525	Columbia Gas of Kentucky
Valve, Gate, 3-1/4"	890524	Columbia Gas of Kentucky
Valve, Gate, 4"	890526	Columbia Gas of Kentucky
Valve, Gate, 4-1/2"	890527	Columbia Gas of Kentucky
Valve, Gate, 4-7/8"	890529	Columbia Gas of Kentucky
Valve, Gate, 5"	890530	Columbia Gas of Kentucky
Valve, Gate, 5-1/2"	890533	Columbia Gas of Kentucky
Valve, Gate, 5-3/16"	890531	Columbia Gas of Kentucky
Valve, Gate, 5-5/8"	890534	Columbia Gas of Kentucky
Valve, Gate, 6"	890536	Columbia Gas of Kentucky
Valve, Gate, 6-1/4"	890570	Columbia Gas of Kentucky
Valve, Gate, 6-5/8"	890537	Columbia Gas of Kentucky
Valve, Gate, 7"	890538	Columbia Gas of Kentucky
Valve, Gate, 7-5/8"	890539	Columbia Gas of Kentucky
Valve, Gate, 8"	890540	Columbia Gas of Kentucky
Valve, Gate, 8-5/8"	890542	Columbia Gas of Kentucky
Valve, Gate, 1/2"	890506	Columbia Gas of Kentucky
Valve, Gate, 10"	890545	Columbia Gas of Kentucky
Valve, Gate, 10-5/8"	890546	Columbia Gas of Kentucky
Valve, Gate, 11"	890548	Columbia Gas of Kentucky
Valve, Gate, 12"	890550	Columbia Gas of Kentucky
Valve, Gate, 13-3/8"	890552	Columbia Gas of Kentucky
Valve, Gate, 14"	890554	Columbia Gas of Kentucky
Valve, Gate, 16"	890556	Columbia Gas of Kentucky
Valve, Gate, 18"	890557	Columbia Gas of Kentucky
Valve, Gate, 20"	890558	Columbia Gas of Kentucky
Valve, Gate, 24"	890560	Columbia Gas of Kentucky
Valve, Gate, 30"	890563	Columbia Gas of Kentucky
Valve, Gate, 36"	890566	Columbia Gas of Kentucky
Valve, Globe, 1"	890610	Columbia Gas of Kentucky
Valve, Globe, 1-1/2"	890615	Columbia Gas of Kentucky
Valve, Globe, 1-1/4"	890612	Columbia Gas of Kentucky
Valve, Globe, 1-3/8"	890614	Columbia Gas of Kentucky
Valve, Globe, 2"	890616	Columbia Gas of Kentucky
Valve, Globe, 2-1/2"	890618	Columbia Gas of Kentucky
Valve, Globe, 3"	890621	Columbia Gas of Kentucky
Valve, Globe, 3-1/2"	890625	Columbia Gas of Kentucky
Valve, Globe, 3-1/4"	890624	Columbia Gas of Kentucky
Valve, Globe, 4"	890626	Columbia Gas of Kentucky
Valve, Globe, 4-1/2"	890627	Columbia Gas of Kentucky
Valve, Globe, 4-7/8"	890629	Columbia Gas of Kentucky
Valve, Globe, 5"	890630	Columbia Gas of Kentucky
Valve, Globe, 5-1/2"	890633	Columbia Gas of Kentucky
Valve, Globe, 5-3/16"	890631	Columbia Gas of Kentucky
Valve, Globe, 5-5/8"	890634	Columbia Gas of Kentucky
Valve, Globe, 6"	890636	Columbia Gas of Kentucky
Valve, Globe, 6-1/4"	890670	Columbia Gas of Kentucky
Valve, Globe, 6-5/8"	890637	Columbia Gas of Kentucky
Valve, Globe, 7"	890638	Columbia Gas of Kentucky
Valve, Globe, 7-5/8"	890639	Columbia Gas of Kentucky
Valve, Globe, 8"	890640	Columbia Gas of Kentucky
Valve, Globe, 8-5/8"	890642	Columbia Gas of Kentucky

<u>retire_unit</u>	<u>external_retire_unit</u>	<u>company</u>
Valve, Globe, 10"	890645	Columbia Gas of Kentucky
Valve, Globe, 10-5/8"	890646	Columbia Gas of Kentucky
Valve, Globe, 11"	890648	Columbia Gas of Kentucky
Valve, Globe, 12"	890650	Columbia Gas of Kentucky
Valve, Globe, 13-3/8"	890652	Columbia Gas of Kentucky
Valve, Globe, 14"	890654	Columbia Gas of Kentucky
Valve, Globe, 16"	890656	Columbia Gas of Kentucky
Valve, Globe, 18"	890657	Columbia Gas of Kentucky
Valve, Globe, 20"	890658	Columbia Gas of Kentucky
Valve, Globe, 24"	890660	Columbia Gas of Kentucky
Valve, Globe, 3/4"	890608	Columbia Gas of Kentucky
Valve, Globe, 36"	890666	Columbia Gas of Kentucky
Valve, Other, 1"	891010	Columbia Gas of Kentucky
Valve, Other, 1-1/2"	891015	Columbia Gas of Kentucky
Valve, Other, 1-1/4"	891012	Columbia Gas of Kentucky
Valve, Other, 1-3/8"	891014	Columbia Gas of Kentucky
Valve, Other, 2"	891016	Columbia Gas of Kentucky
Valve, Other, 2-1/2"	891018	Columbia Gas of Kentucky
Valve, Other, 3"	891021	Columbia Gas of Kentucky
Valve, Other, 3-1/2"	891025	Columbia Gas of Kentucky
Valve, Other, 3-1/4"	891024	Columbia Gas of Kentucky
Valve, Other, 4"	891026	Columbia Gas of Kentucky
Valve, Other, 4-1/2"	891027	Columbia Gas of Kentucky
Valve, Other, 4-7/8"	891029	Columbia Gas of Kentucky
Valve, Other, 5"	891030	Columbia Gas of Kentucky
Valve, Other, 5-1/2"	891033	Columbia Gas of Kentucky
Valve, Other, 5-3/16"	891031	Columbia Gas of Kentucky
Valve, Other, 5-5/8"	891034	Columbia Gas of Kentucky
Valve, Other, 6"	891036	Columbia Gas of Kentucky
Valve, Other, 6-1/4"	891070	Columbia Gas of Kentucky
Valve, Other, 6-5/8"	891037	Columbia Gas of Kentucky
Valve, Other, 7"	891038	Columbia Gas of Kentucky
Valve, Other, 7-5/8"	891039	Columbia Gas of Kentucky
Valve, Other, 8"	891040	Columbia Gas of Kentucky
Valve, Other, 8-5/8"	891042	Columbia Gas of Kentucky
Valve, Other, no size specified	891000	Columbia Gas of Kentucky
Valve, Other, 1/2"	891006	Columbia Gas of Kentucky
Valve, Other, 1/4"	891003	Columbia Gas of Kentucky
Valve, Other, 10"	891045	Columbia Gas of Kentucky
Valve, Other, 10-5/8"	891046	Columbia Gas of Kentucky
Valve, Other, 11"	891048	Columbia Gas of Kentucky
Valve, Other, 12"	891050	Columbia Gas of Kentucky
Valve, Other, 13-3/8"	891052	Columbia Gas of Kentucky
Valve, Other, 14"	891054	Columbia Gas of Kentucky
Valve, Other, 16"	891056	Columbia Gas of Kentucky
Valve, Other, 18"	891057	Columbia Gas of Kentucky
Valve, Other, 20"	891058	Columbia Gas of Kentucky
Valve, Other, 24"	891060	Columbia Gas of Kentucky
Valve, Other, 36"	891066	Columbia Gas of Kentucky
Valve, P Curb, 1"	892910	Columbia Gas of Kentucky
Valve, P Curb, 1-1/2"	892915	Columbia Gas of Kentucky
Valve, P Curb, 1-1/4"	892912	Columbia Gas of Kentucky
Valve, P Curb, 1-3/8"	892914	Columbia Gas of Kentucky



<u>retire_unit</u>	<u>external_retire_unit</u>	<u>company</u>
Valve, P Curb, 2"	892916	Columbia Gas of Kentucky
Valve, P Curb, 2-1/2"	892918	Columbia Gas of Kentucky
Valve, P Curb, 3"	892921	Columbia Gas of Kentucky
Valve, P Curb, 3-1/2"	892925	Columbia Gas of Kentucky
Valve, P Curb, 3-1/4"	892924	Columbia Gas of Kentucky
Valve, P Curb, 4"	892926	Columbia Gas of Kentucky
Valve, P Curb, 4-1/2"	892927	Columbia Gas of Kentucky
Valve, P Curb, 4-7/8"	892929	Columbia Gas of Kentucky
Valve, P Curb, 5"	892930	Columbia Gas of Kentucky
Valve, P Curb, 5-1/2"	892933	Columbia Gas of Kentucky
Valve, P Curb, 5-3/16"	892931	Columbia Gas of Kentucky
Valve, P Curb, 5-5/8"	892934	Columbia Gas of Kentucky
Valve, P Curb, 6"	892936	Columbia Gas of Kentucky
Valve, P Curb, 6-1/4"	892970	Columbia Gas of Kentucky
Valve, P Curb, 6-5/8"	892937	Columbia Gas of Kentucky
Valve, P Curb, 7"	892938	Columbia Gas of Kentucky
Valve, P Curb, 7-5/8"	892939	Columbia Gas of Kentucky
Valve, P Curb, 8"	892940	Columbia Gas of Kentucky
Valve, P Curb, 8-5/8"	892942	Columbia Gas of Kentucky
Valve, P Curb, 10"	892945	Columbia Gas of Kentucky
Valve, P Curb, 10-3/5"	892947	Columbia Gas of Kentucky
Valve, P Curb, 10-5/8"	892946	Columbia Gas of Kentucky
Valve, P Curb, 11"	892948	Columbia Gas of Kentucky
Valve, P Curb, 12"	892950	Columbia Gas of Kentucky
Valve, P Curb, 13-3/8"	892952	Columbia Gas of Kentucky
Valve, P Curb, 14"	892954	Columbia Gas of Kentucky
Valve, P Curb, 16"	892956	Columbia Gas of Kentucky
Valve, P Curb, 18"	892957	Columbia Gas of Kentucky
Valve, P Curb, 20"	892958	Columbia Gas of Kentucky
Valve, P Curb, 24"	892960	Columbia Gas of Kentucky
Valve, P Curb, 36"	892966	Columbia Gas of Kentucky
Valve, Plg/Chk, 1"	890310	Columbia Gas of Kentucky
Valve, Plg/Chk, 1-1/2"	890315	Columbia Gas of Kentucky
Valve, Plg/Chk, 1-1/4"	890312	Columbia Gas of Kentucky
Valve, Plg/Chk, 1-3/8"	890314	Columbia Gas of Kentucky
Valve, Plg/Chk, 2"	890316	Columbia Gas of Kentucky
Valve, Plg/Chk, 2-1/2"	890318	Columbia Gas of Kentucky
Valve, Plg/Chk, 3"	890321	Columbia Gas of Kentucky
Valve, Plg/Chk, 3-1/2"	890325	Columbia Gas of Kentucky
Valve, Plg/Chk, 3-1/4"	890324	Columbia Gas of Kentucky
Valve, Plg/Chk, 4"	890326	Columbia Gas of Kentucky
Valve, Plg/Chk, 4-1/2"	890327	Columbia Gas of Kentucky
Valve, Plg/Chk, 4-7/8"	890329	Columbia Gas of Kentucky
Valve, Plg/Chk, 5"	890330	Columbia Gas of Kentucky
Valve, Plg/Chk, 5-1/2"	890333	Columbia Gas of Kentucky
Valve, Plg/Chk, 5-3/16"	890331	Columbia Gas of Kentucky
Valve, Plg/Chk, 5-5/8"	890334	Columbia Gas of Kentucky
Valve, Plg/Chk, 6"	890336	Columbia Gas of Kentucky
Valve, Plg/Chk, 6-1/4"	890370	Columbia Gas of Kentucky
Valve, Plg/Chk, 6-5/8"	890337	Columbia Gas of Kentucky
Valve, Plg/Chk, 7"	890338	Columbia Gas of Kentucky
Valve, Plg/Chk, 7-5/8"	890339	Columbia Gas of Kentucky
Valve, Plg/Chk, 8"	890340	Columbia Gas of Kentucky

<u>retire_unit</u>	<u>external_retire_unit</u>	<u>company</u>
Valve, Plg/Chk, 8-5/8"	890342	Columbia Gas of Kentucky
Valve, Plg/Chk, 10"	890345	Columbia Gas of Kentucky
Valve, Plg/Chk, 10-5/8"	890346	Columbia Gas of Kentucky
Valve, Plg/Chk, 11"	890348	Columbia Gas of Kentucky
Valve, Plg/Chk, 12"	890350	Columbia Gas of Kentucky
Valve, Plg/Chk, 13-3/8"	890352	Columbia Gas of Kentucky
Valve, Plg/Chk, 14"	890354	Columbia Gas of Kentucky
Valve, Plg/Chk, 16"	890356	Columbia Gas of Kentucky
Valve, Plg/Chk, 18"	890357	Columbia Gas of Kentucky
Valve, Plg/Chk, 20"	890358	Columbia Gas of Kentucky
Valve, Plg/Chk, 24"	890360	Columbia Gas of Kentucky
Valve, Plg/Chk, 36"	890366	Columbia Gas of Kentucky
Valve, Plug, 1"	890710	Columbia Gas of Kentucky
Valve, Plug, 1-1/2"	890715	Columbia Gas of Kentucky
Valve, Plug, 1-1/4"	890712	Columbia Gas of Kentucky
Valve, Plug, 1-3/8"	890714	Columbia Gas of Kentucky
Valve, Plug, 2"	890716	Columbia Gas of Kentucky
Valve, Plug, 2-1/2"	890718	Columbia Gas of Kentucky
Valve, Plug, 3"	890721	Columbia Gas of Kentucky
Valve, Plug, 3-1/2"	890725	Columbia Gas of Kentucky
Valve, Plug, 3-1/4"	890724	Columbia Gas of Kentucky
Valve, Plug, 4"	890726	Columbia Gas of Kentucky
Valve, Plug, 4-1/2"	890727	Columbia Gas of Kentucky
Valve, Plug, 4-7/8"	890729	Columbia Gas of Kentucky
Valve, Plug, 5"	890730	Columbia Gas of Kentucky
Valve, Plug, 5-1/2"	890733	Columbia Gas of Kentucky
Valve, Plug, 5-3/16"	890731	Columbia Gas of Kentucky
Valve, Plug, 5-5/8"	890734	Columbia Gas of Kentucky
Valve, Plug, 6"	890736	Columbia Gas of Kentucky
Valve, Plug, 6-1/4"	890770	Columbia Gas of Kentucky
Valve, Plug, 6-5/8"	890737	Columbia Gas of Kentucky
Valve, Plug, 7"	890738	Columbia Gas of Kentucky
Valve, Plug, 7-5/8"	890739	Columbia Gas of Kentucky
Valve, Plug, 8"	890740	Columbia Gas of Kentucky
Valve, Plug, 8-5/8"	890742	Columbia Gas of Kentucky
Valve, Plug, 1/2"	890706	Columbia Gas of Kentucky
Valve, Plug, 10"	890745	Columbia Gas of Kentucky
Valve, Plug, 10-5/8"	890746	Columbia Gas of Kentucky
Valve, Plug, 11"	890748	Columbia Gas of Kentucky
Valve, Plug, 12"	890750	Columbia Gas of Kentucky
Valve, Plug, 13-3/8"	890752	Columbia Gas of Kentucky
Valve, Plug, 14"	890754	Columbia Gas of Kentucky
Valve, Plug, 16"	890756	Columbia Gas of Kentucky
Valve, Plug, 18"	890757	Columbia Gas of Kentucky
Valve, Plug, 20"	890758	Columbia Gas of Kentucky
Valve, Plug, 24"	890760	Columbia Gas of Kentucky
Valve, Plug, 3/4"	890708	Columbia Gas of Kentucky
Valve, Plug, 36"	890766	Columbia Gas of Kentucky
Valve, Relief, 1"	890810	Columbia Gas of Kentucky
Valve, Relief, 1-1/2"	890815	Columbia Gas of Kentucky
Valve, Relief, 1-1/4"	890812	Columbia Gas of Kentucky
Valve, Relief, 1-3/8"	890814	Columbia Gas of Kentucky
Valve, Relief, 2"	890816	Columbia Gas of Kentucky

<u>retire_unit</u>	<u>external_retire_unit</u>	<u>company</u>
Valve, Relief, 2-1/2"	890818	Columbia Gas of Kentucky
Valve, Relief, 3"	890821	Columbia Gas of Kentucky
Valve, Relief, 3-1/2"	890825	Columbia Gas of Kentucky
Valve, Relief, 3-1/4"	890824	Columbia Gas of Kentucky
Valve, Relief, 4"	890826	Columbia Gas of Kentucky
Valve, Relief, 4-1/2"	890827	Columbia Gas of Kentucky
Valve, Relief, 4-7/8"	890829	Columbia Gas of Kentucky
Valve, Relief, 5"	890830	Columbia Gas of Kentucky
Valve, Relief, 5-1/2"	890833	Columbia Gas of Kentucky
Valve, Relief, 5-3/16"	890831	Columbia Gas of Kentucky
Valve, Relief, 5-5/8"	890834	Columbia Gas of Kentucky
Valve, Relief, 6"	890836	Columbia Gas of Kentucky
Valve, Relief, 6-1/4"	890870	Columbia Gas of Kentucky
Valve, Relief, 6-5/8"	890837	Columbia Gas of Kentucky
Valve, Relief, 7"	890838	Columbia Gas of Kentucky
Valve, Relief, 7-5/8"	890839	Columbia Gas of Kentucky
Valve, Relief, 8"	890840	Columbia Gas of Kentucky
Valve, Relief, 8-5/8"	890842	Columbia Gas of Kentucky
Valve, Relief, no size specified	890800	Columbia Gas of Kentucky
Valve, Relief, 1/2"	890806	Columbia Gas of Kentucky
Valve, Relief, 10"	890845	Columbia Gas of Kentucky
Valve, Relief, 10-508"	890846	Columbia Gas of Kentucky
Valve, Relief, 11"	890848	Columbia Gas of Kentucky
Valve, Relief, 12"	890850	Columbia Gas of Kentucky
Valve, Relief, 13-3/8"	890852	Columbia Gas of Kentucky
Valve, Relief, 14"	890854	Columbia Gas of Kentucky
Valve, Relief, 16"	890856	Columbia Gas of Kentucky
Valve, Relief, 18"	890857	Columbia Gas of Kentucky
Valve, Relief, 20"	890858	Columbia Gas of Kentucky
Valve, Relief, 24"	890860	Columbia Gas of Kentucky
Valve, Relief, 3/4"	890808	Columbia Gas of Kentucky
Valve, Relief, 36"	890866	Columbia Gas of Kentucky
Vaporizer G/F-LNG	905100	Columbia Gas of Kentucky
Vaporizer, I/F-LNG	905200	Columbia Gas of Kentucky
Vaporizer, Propane	905000	Columbia Gas of Kentucky
Vault	915000	Columbia Gas of Kentucky
Video Camera	917100	Columbia Gas of Kentucky
Video Control Ctr	917200	Columbia Gas of Kentucky
Video Decoder	420989	Columbia Gas of Kentucky
Video Lighting Kits	917300	Columbia Gas of Kentucky
Video Mon/Tv Set	917400	Columbia Gas of Kentucky
Video Playback Unit	917500	Columbia Gas of Kentucky
Video Prod Recorder	917600	Columbia Gas of Kentucky
Video Rec/Playback Unit	917700	Columbia Gas of Kentucky
Viewer Scanner	262852	Columbia Gas of Kentucky
Vise, Pipe & Bench	810912	Columbia Gas of Kentucky
Voice Pagers	438200	Columbia Gas of Kentucky
Walk (Steps)	198400	Columbia Gas of Kentucky
Washer Automatic	420995	Columbia Gas of Kentucky
Water Treatment System	930000	Columbia Gas of Kentucky
Water Well	935000	Columbia Gas of Kentucky
Weatherproof Housing	945000	Columbia Gas of Kentucky
Weatherscope	355920	Columbia Gas of Kentucky

<u>retire_unit</u>	<u>external_retire_unit</u>	<u>company</u>
Welding Machine Ac	810956	Columbia Gas of Kentucky
Well Construction	950000	Columbia Gas of Kentucky
Westinghouse CI200	416885	Columbia Gas of Kentucky
Wh Tract 20/65 Hp	295420	Columbia Gas of Kentucky
Wh Tract Under 20 Hp	295410	Columbia Gas of Kentucky
Winch Power	810958	Columbia Gas of Kentucky
Wire Comm Cable Rurl	955300	Columbia Gas of Kentucky
Wire Comm Copper	955100	Columbia Gas of Kentucky
Wire Comm Copperweld	955200	Columbia Gas of Kentucky
Wire Comm Inter Comm	955400	Columbia Gas of Kentucky
Wire Machine	810960	Columbia Gas of Kentucky
Work Station	262488	Columbia Gas of Kentucky
Yard Lighting	970000	Columbia Gas of Kentucky