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March 29, 2013

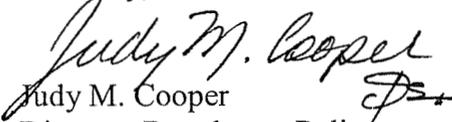
Mr. Jeff Derouen  
Executive Director  
Kentucky Public Service Commission  
211 Sower Boulevard  
P. O. Box 615  
Frankfort, KY 40602

Dear Mr. Derouen,

Pursuant to the Commission's Order of February 26, 2001 in Case No. 2000-429, Columbia Gas of Kentucky, Inc. hereby files its annual report for the Statistical Meter Testing Plan. An original and three copies are enclosed.

If you have any questions, please contact me at (859) 288-0242 or [jmcoop@nisource.com](mailto:jmcoop@nisource.com). Thank you.

Sincerely,

  
Judy M. Cooper  
Director, Regulatory Policy

<b>1</b>	<b>2013 Meter Sample Annual Report</b>
<b>2</b>	<b>Exhibit A Identification of Control Groups</b>
<b>3</b>	<b>Exhibit B Domestic Meters Test Results</b>
<b>4</b>	<b>Exhibit C Large Volume Meters Test Results</b>
<b>5</b>	<b>Exhibit D Percentage of Domestic Meter Accuracy by Family</b>
<b>6</b>	<b>Exhibit E Percentage of Large Volume Meter Accuracy by Family</b>
<b>7</b>	<b>Exhibit F Cost Savings</b>
<b>8</b>	<b>Exhibit G Test Results of New Meters</b>

## **COLUMBIA GAS OF KENTUCKY INC.**

### **2012 METER SAMPLING ANNUAL REPORT**

Columbia Gas of Kentucky completed the seventeenth year of their Meter Sampling program in December 2012.

A total of 4631 meters making up 31 homogenous groups were sampled in 2012. Details are listed in the Evaluation of Data and Corrective Actions below.

In 2012 Columbia Gas of Kentucky service personnel made 40,598 visits to our customers' premises working orders that involved inspecting house lines and / or appliances. Columbia inspected 50,825 meter set assemblies in conjunction with the Customer Service Line Survey program.

No regulator failure in 2012 resulted in overpressure being delivered to the customer's piping.

Columbia continues to promote safety through:

#### **News Releases**

- 4/20/12 – "Call Before You Dig" release to all media in CKY service area

#### **Bills & Bill Inserts**

- Monthly -- The "Welcome to Columbia Gas of Kentucky" insert is sent to new customers and includes information about maintenance of customer-owned buried gas lines and Kentucky 811.
- 1/12 -- The "For Your Safety & Comfort" insert sent to all residential and small commercial customers. Includes information about carbon monoxide poisoning prevention and heating equipment maintenance.
- 1/12 -- "Your Service" customer newsletter included article about upgrades to pipeline infrastructure and keeping meters clear of snow and ice.
- 4/12 -- "Your Service" customer newsletter included article about how to detect a natural gas leak and what to do if one is suspected. Also included article about Kentucky 811. Also included article on the dangers of energy theft.

- 6/12 -- "Maintenance of Customer-Owned Buried Gas Lines" message on bills to customers in meter locations 02, 10, 26, 68 and 70.
  - 7/12 -- "Your Service" customer newsletter included article about gas connectors.
  - 10/12 -- Scratch-n-sniff bill insert provides odor of gas awareness to all residential and small commercial customers. This insert also runs in initial customer bills.
  - 10/12 -- "Your Service" customer newsletter included article about how to prevent exposure to carbon monoxide.
  - Left column of monthly bill for residential and small commercial customers includes bill messages regarding odor of gas, call before you dig and employee identification.
- Billing envelope (back flap) has Call 811 Before You Dig message.

### Web Site

- Safety tips (English & Spanish)
- Kentucky 811 information and link
- Contact Us form where customers can email safety-related inquiries and other questions to CKY staff
- Current and previous issues of "Your Service" customer newsletter and other bill inserts
- News releases

### Electronic Communications

- 12/12 -- Email sent to 34,154 customers regarding natural gas odor recognition and response.

### Community Outreach

- Pipeline safety flyer mailed to paid and volunteer Fire Chiefs in CKY service area
  - Customer letters, door hangers and neighborhood presentations associated with large pipeline replacement projects
  - Jobsite media interviews discussing call before you dig, how to detect a natural gas leak and what to do if a leak is suspected
  - Pipeline safety brochure translated into Spanish as part of Public Awareness Program
  - 10/12 -- Served as primary sponsor of Buffalo Trace-Dale Jackson Memorial Regional Fire School in Maysville, KY
  - Distributed plastic hard hats with Call Before You Dig message on them to children at events and job sites
- Natural gas safety education materials provided to teachers upon request through the National Energy Foundation

### Advertising

- Safety ad campaign focusing on Call Before You Dig was placed in radio, print and online media in April-May 2012. Print ad was created in English and Spanish and ran in Business Lexington and LaVoz, Online ads appeared on kentucky.com, floydcountytimes.com, and maysvilleonline.com. Radio markets included Lexington, Floyd County, Maysville, and Boyd County.
- Direct mail campaign focusing on Call Before You Dig was conducted to excavators in the CKY service area in April 2012.
- Safety ad campaign focusing on recognition of gas leak and how to respond was placed in radio, print and online media in the November-December 2012. Publication locations are the same as listed above.
- Kentucky 811 billboard at Lexington Legends ballpark was co-sponsored by CKY and Kentucky 811 throughout 2012.

### Excavator/Emergency Responder Training

- Sponsored natural gas safety training sessions for excavators and emergency responders May 7-June 21 in Mt. Sterling, Hazard, Grayson, Prestonsburg, Richmond, Maysville, and Lexington.

Columbia Gas of Kentucky feels we are continuing to improve the quality of measurement provided to our customers through the Meter Sampling Program. In 2012 we improved the overall performance of meters removed for meter sampling. We have seen a 1.9% improvement of domestic meters that test within tolerance and a 4.6% improvement of large volume meters that test within tolerance since our meter sampling program began.

### Evaluation of Data

- A total of 4410 domestic meters making up 27 homogenous Control Groups were sampled in 2012.
- Of the 4410 meters sampled 141 tested outside the required accuracy of +/- 2% and were classified a failed meter.
- 3.2% of the domestic meters pulled for meter sampling failed.
- All 27 homogenous Control Groups passed the requirements of American National Standards Institute / American Society for Quality Control Z 1.4.

- A total of 199 Large Volume meters making up 4 homogenous Control Groups were sampled in 2012.
- Of the 199 Large Volume meters sampled, 5 tested outside the required accuracy of +/- 2% and were classified a failed meter.
- 2.5% of Columbia Gas of Kentucky's Large Volume meters failed.
- All 4 Large Volume homogenous Control Groups passed the requirements of American National Standards Institute / American Society for Quality Control Z 1.4.

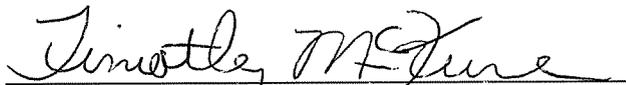
### Corrective Action

- Columbia Gas of Kentucky will continue to in-test and retire, when pulled from service, meters that have established a poor performance record even though their group has not failed. In previous filings we have listed individual meters that are retired due to poor performance. We are now in-testing and retiring all meters that are not temperature compensated. This eliminates poor performing meters from being re-installed.

### Regulator Failures

- Columbia Gas of Kentucky had 33 regulator failures in 2012. Due to full internal relief of the regulator, none resulted in an overpressure situation for the customer.
- 13 regulators had gas leakage from the vent.
- 20 regulators would not adjust or lock up correctly.

Should you have any questions, contact Timothy McKune at (859) 288-0241.



**Timothy McKune**  
Compliance Manager  
Columbia Gas of Kentucky

**EXHIBIT A**

**IDENTIFICATION OF EACH CONTROL GROUP**  
**OR METER FAMILIES**

**A five-character number identifies each Control Group or Family. 1-2-3-4-5**

**1 Identifies if Control Group or Family is new or repaired meters**

**N = New**  
**R = Repaired**

**2-3 Identifies Meter Manufacturer**

**AM = American**  
**RO = Rockwell**  
**LA = Lancaster**  
**SP = Sprague**

**4-5 Identifies the age of the Group or Family**

**Example – Identifier RAM01 indicates a Repaired American Meter. The 01 represents the oldest group of repaired American meters. A detail of the age of each group is found in Exhibit D & E.**

**Large Volume meters 500 – 1500 CFH follow the same format with a “B” in front of the identifier.**

**EXHIBIT B**

**2012 COLUMBIA GAS OF KENTUCKY DOMESTIC  
METER SAMPLING TEST RESULTS**

**Page 1 & 2 of Exhibit B gives a summary of each Domestic (0 – 500 CFH) Family. Listed on page 1 & 2 of exhibit are:**

- 1. Name of the Family Codes**
- 2. Total number of meters in that family on the customer's premises**
- 3. Total number of meters in that family required to be sampled**
- 4. Total number of meters sampled**
- 5. Total number of meters in-testing outside the required +/- 2%**
- 6. Total number of meters allowed to fail**
- 7. Passed/Failed Status of Meter Family**
- 8. Percentage of meters failed per Family**
- 9. Number of meters failed fast**
- 10. Number of meters failed slow**

**Page 3 of Exhibit B identifies in graph form the percentages of meters within tolerance since Columbia Gas of Kentucky began sampling in 1996. This is a combined listing of all domestic meter groups.**

## 2012 COLUMBIA GAS OF KENTUCKY METER SAMPLING RESULTS

Samples taken between 2012-01-01 and 2012-12-31

### "A" Class Meters 0-500 CFH

FAMILY CODES	TOTAL MTRS. IN FAMILY	TOTAL MTRS REQ'D IN PROGRAM	TOTAL SAMPLED	TOTAL FAILED METERS	TOTAL REJECTS ALLOWABLE	2012 FAMILY STATUS	RATIO FAILED (d/c=g)	NUMBER FAILED FAST	NUMBER FAILED SLOW
	(a)	(b)	(c)	(d)	(e)	(f)		(h)	(i)
NAM01	1526	125	125	2	14	PASSED	1.6%	0	2
NAM02	3980	200	200	1	21	PASSED	0.5%	0	1
NAM03	2926	125	127	2	21	PASSED	1.6%	0	2
NAM04	2213	125	125	0	14	PASSED	0.0%	0	0
NAM05	453	50	50	0	10	PASSED	0.0%	0	0
NAM06	5191	200	201	0	21	PASSED	0.0%	0	0
NAM06A	5355	200	200	5	14	PASSED	2.5%	3	2
NAM07	5389	200	199	14	21	PASSED	7.0%	13	1
NAM08	7929	200	206	14	21	PASSED	6.8%	12	2
NAM09	3117	125	142	0	21	PASSED	0.0%	0	0
NAM10	7651	200	200	2	21	PASSED	1.0%	2	0
NLA01	927	80	80	1	10	PASSED	1.3%	0	1
NLA02	4786	200	201	2	21	PASSED	1.0%	0	2
NRO01	4005	200	200	3	21	PASSED	1.5%	0	3
NRO02	7162	200	214	16	21	PASSED	7.5%	15	1

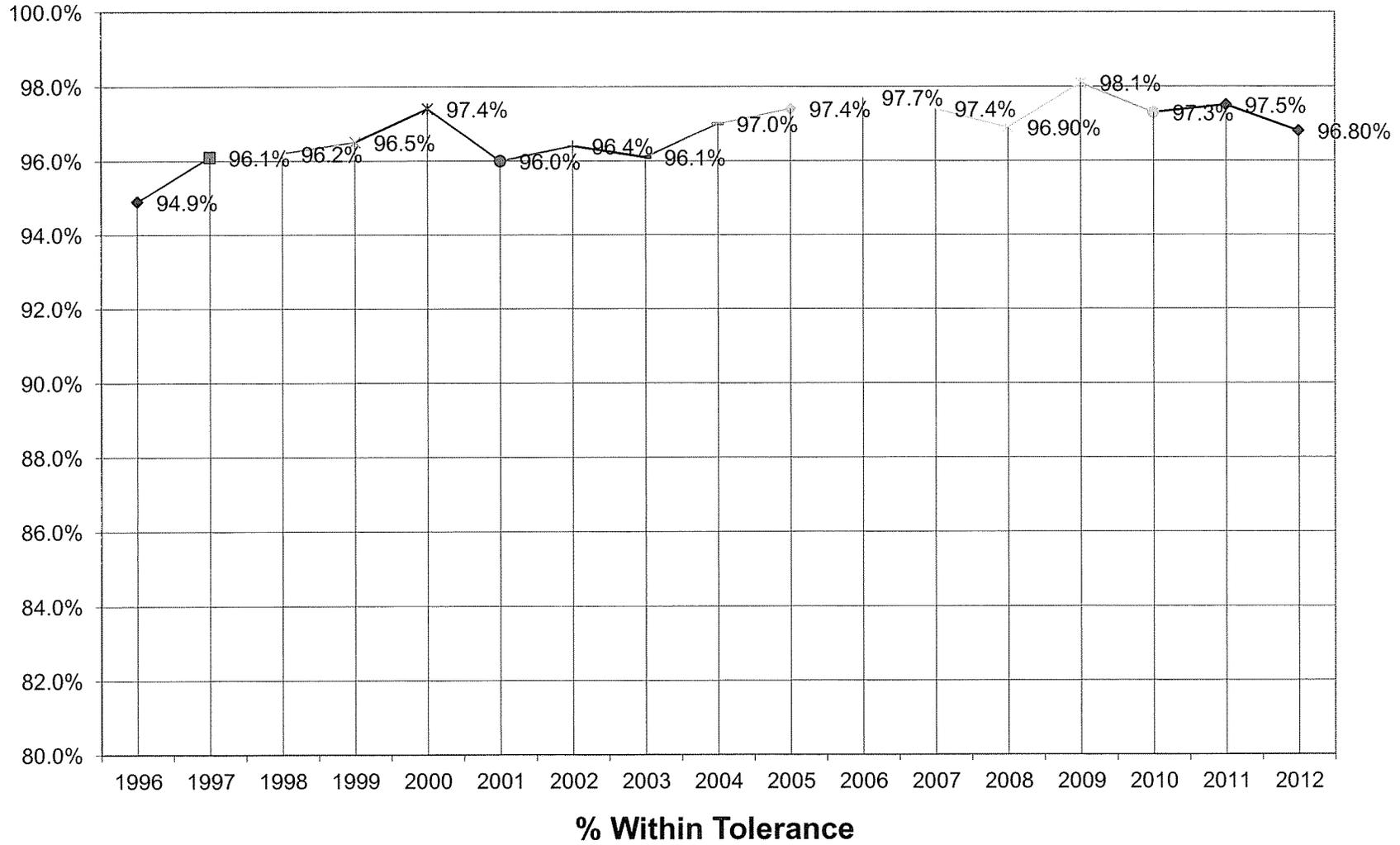
NSP01	136	20	20	0	2	PASSED	0.0%	0	0
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Samples taken between 2012-01-01 and 2012-12-31

**"A" Class Meters 0-500 CFH**

<u>FAMILY CODES</u>	<u>TOTAL MTRS. IN FAMILY</u>	<u>TOTAL MTRS REQ'D IN PROGRAM</u>	<u>TOTAL SAMPLED</u>	<u>TOTAL FAILED METERS</u>	<u>TOTAL REJECTS ALLOWABLE</u>	<u>2012 FAMILY STATUS</u>	<u>RATIO FAILED (d/c=g)</u>	<u>NUMBER FAILED FAST</u>	<u>NUMBER FAILED SLOW</u>
	(a)	(b)	(c)	(d)	(e)	(f)		(h)	(i)
RAM02	415	50	51	5	7	PASSED	9.8%	1	4
RAM03	1134	80	80	4	14	PASSED	5.0%	0	4
RAM04	6480	200	214	12	21	PASSED	5.6%	0	12
RAM05	7422	200	216	6	21	PASSED	2.8%	0	6
RAM06	7025	200	200	2	21	PASSED	1.0%	0	2
RLA03	3046	125	125	1	21	PASSED	0.8%	0	1
RRO01	3568	200	212	12	21	PASSED	5.7%	1	11
RRO02	3752	200	203	10	21	PASSED	4.9%	0	10
RRO03	3334	200	200	9	21	PASSED	4.5%	2	7
RRO04	4992	200	219	10	21	PASSED	4.6%	6	4
RSP01	4658	200	200	8	21	PASSED	4.0%	1	7
<b>TOTAL</b>	<b>108572</b>	<b>4305</b>	<b>4410</b>	<b>141</b>			<b>3.2%</b>	<b>56</b>	<b>85</b>

# Columbia Gas of Kentucky Inc. "A" Meter Program Overall Results



**EXHIBIT C**

**2012 COLUMBIA GAS OF KENTUCKY LARGE VOLUME**  
**METER SAMPLING TEST RESULTS**

**Page 1 of Exhibit C gives a summary of each Large Volume (500 - 1500 CFH) Family. Listed on page 1 of exhibit are:**

- 1. Name of the Family Codes**
- 2. Total number of meters in that family on the customer's premises**
- 3. Total number of meters in that family required to be sampled**
- 4. Total number of meters sampled**
- 5. Total number of meters in-testing outside the required +/- 2%**
- 6. Total number of meters allowed to fail**
- 7. Passed/Failed Status of Meter Family**
- 8. Percentage of meters failed per Family**
- 9. Number of meters failed fast**
- 10. Number of meters failed slow**

**Page 2 of Exhibit C identifies in graph form the percentages of meters within tolerance since Columbia Gas of Kentucky began sampling in 1996. This is a combined listing of all large volume groups.**

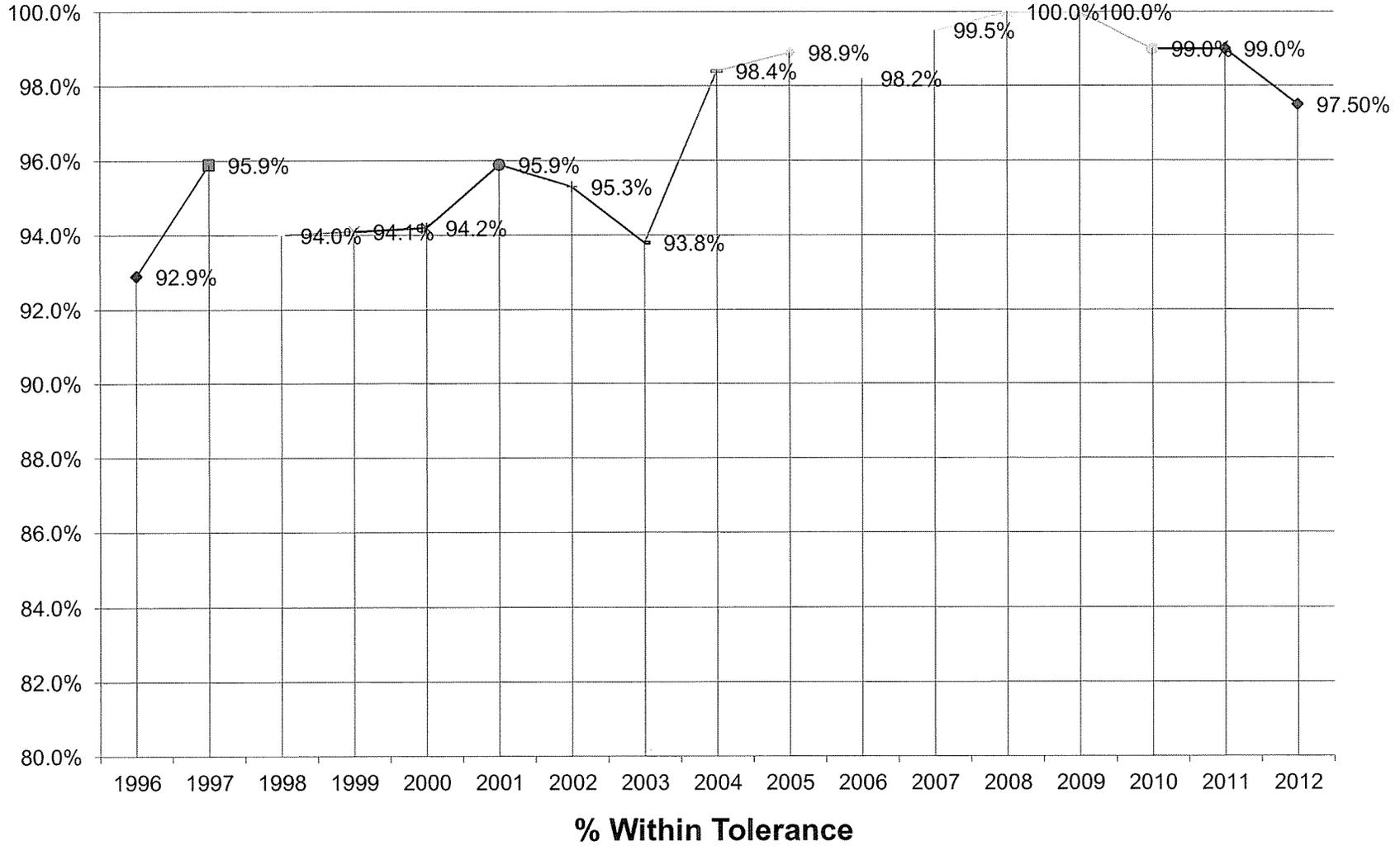
## 2012 COLUMBIA GAS OF KENTUCKY METER SAMPLING RESULTS

Samples taken between 2012-01-01 and 2012-12-31

### "B" Class Meters 500 - 1500 CFH

FAMILY CODES	TOTAL MTRS. IN FAMILY	TOTAL MTRS REQ'D IN PROGRAM	TOTAL SAMPLED	TOTAL FAILED METERS	TOTAL REJECTS ALLOWABLE	2012 FAMILY STATUS	RATIO FAILED (d/c=g)	NUMBER FAILED FAST (h)	NUMBER FAILED SLOW (l)
	(a)	(b)	(c)	(d)	(e)	(f)			
BNAM01	639	80	78	5	10	PASSED	6.4%	4	1
BRAM01	1029	80	84	0	10	PASSED	0.0%		0
BRRO01	207	32	32	0	5	PASSED	0.0%		
BRSP01	22	5	5	0	1	PASSED	0.0%		0
<b>TOTAL</b>	<b>1897</b>	<b>197</b>	<b>199</b>	<b>5</b>			<b>2.5%</b>	<b>4</b>	<b>1</b>

# Columbia Gas of Kentucky Inc. "B" Meter Program Overall Results



**EXHIBIT D**

**PERCENTAGE OF DOMESTIC METER ACCURACY**  
**BY FAMILY**

**Exhibit D - represents the percentage of meters sampled in 2012 that were within the +/- 2% rate, identified by homogenous group. We also show previous results of meter families sampled in the past ten years.**

**NAM01 = New American meters purchased between 1981 & 1990**

**NAM02 = New American meters purchased between 1991 & 1993**

**NAM03 = New American meters purchased in 1994**

**NAM04 = New American meters purchased in 1995**

**NAM05 = New American meters purchased in 1996**

**NAM06 = New American meters purchased in 1999 & 2000**

**NAM06A= New American meters purchased in 2001 & 2002**

**NAM07 = New American meters purchased in 2003**

**NAM08 = New American meters purchased in 2004**

**NAM09 = New American meters purchased in 2006**

**NAM10 = New American meters purchased in 2008 & 2010**

**NLA01 = New Lancaster meters purchased in 1987**

**NLA02 = New Lancaster meters purchased between 1989, 1990, & 1992**

**NRO01 = New Rockwell meters purchased between 1983 & 1996**

**NRO02 = New Rockwell meters purchased between 1997 & 1999**

**NSP01 = New Sprague meters purchased between 1982 & 1996**

**RAM02 = Repaired American meters installed in 1987 & 1989**

**RAM03 = Repaired American meters installed in 1990 & 1991**

**RAM04 = Repaired American meters installed between 1992 & 1996**

**RAM05 = Repaired American meters installed between 1997 & 2002**

**RAM06 = Repaired American meters installed in 2004, 2006, 2008, & 2010**

**RLA03 = Repaired Lancaster meters installed between 1987 & 2006**

**RRO01 = Repaired Rockwell meters installed between 1981 & 1989**

**RRO02 = Repaired Rockwell meters installed between 1990 & 1993**

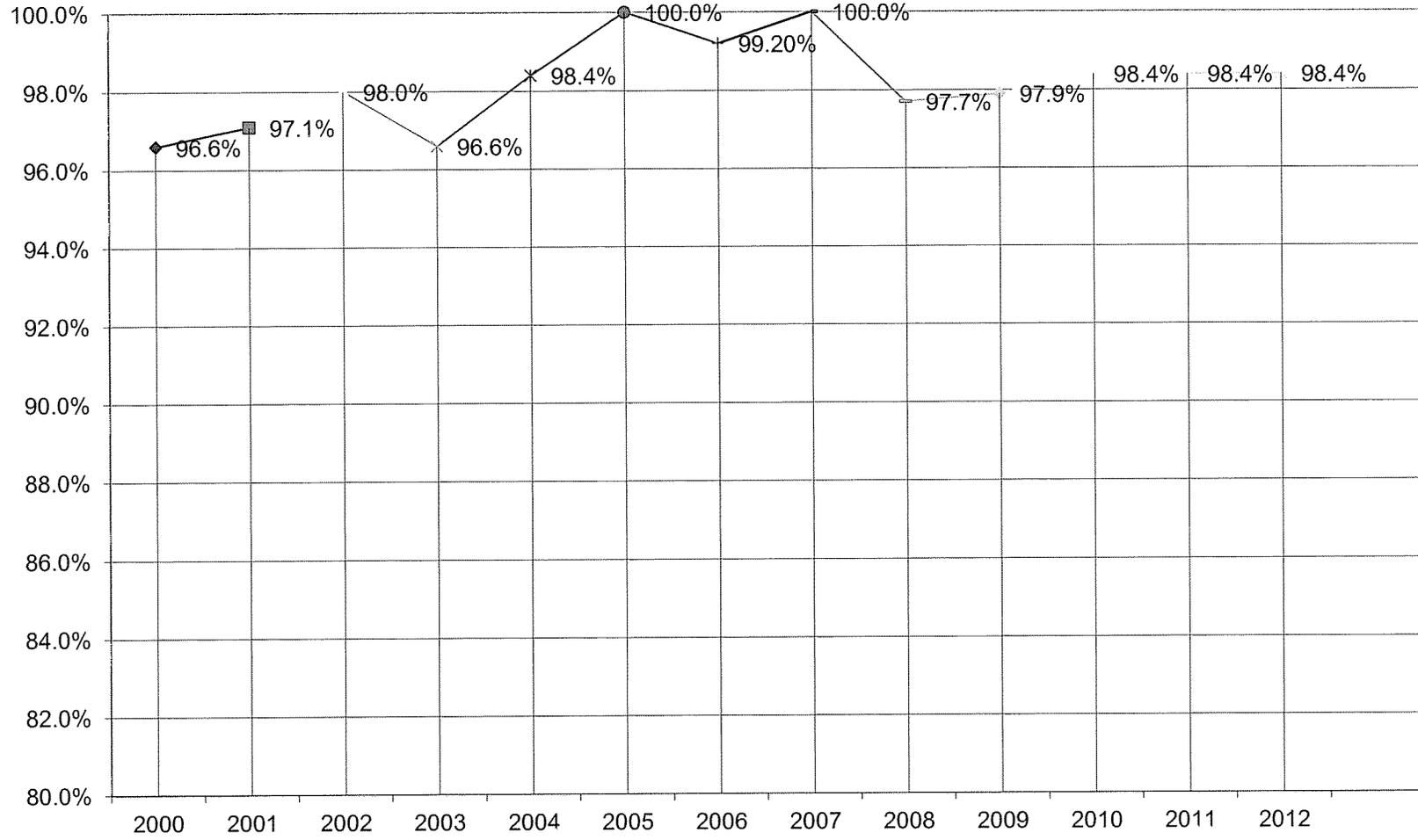
**RRO03 = Repaired Rockwell meters installed in 1994 & 1999**

**RRO04 = Repaired Rockwell meters installed in 2000, 2001, 2002, 2003, 2004, 2006, 2008, & 2010**

**RSP01 = Repaired Sprague meters installed between 1983 & 2004**

# NAM01

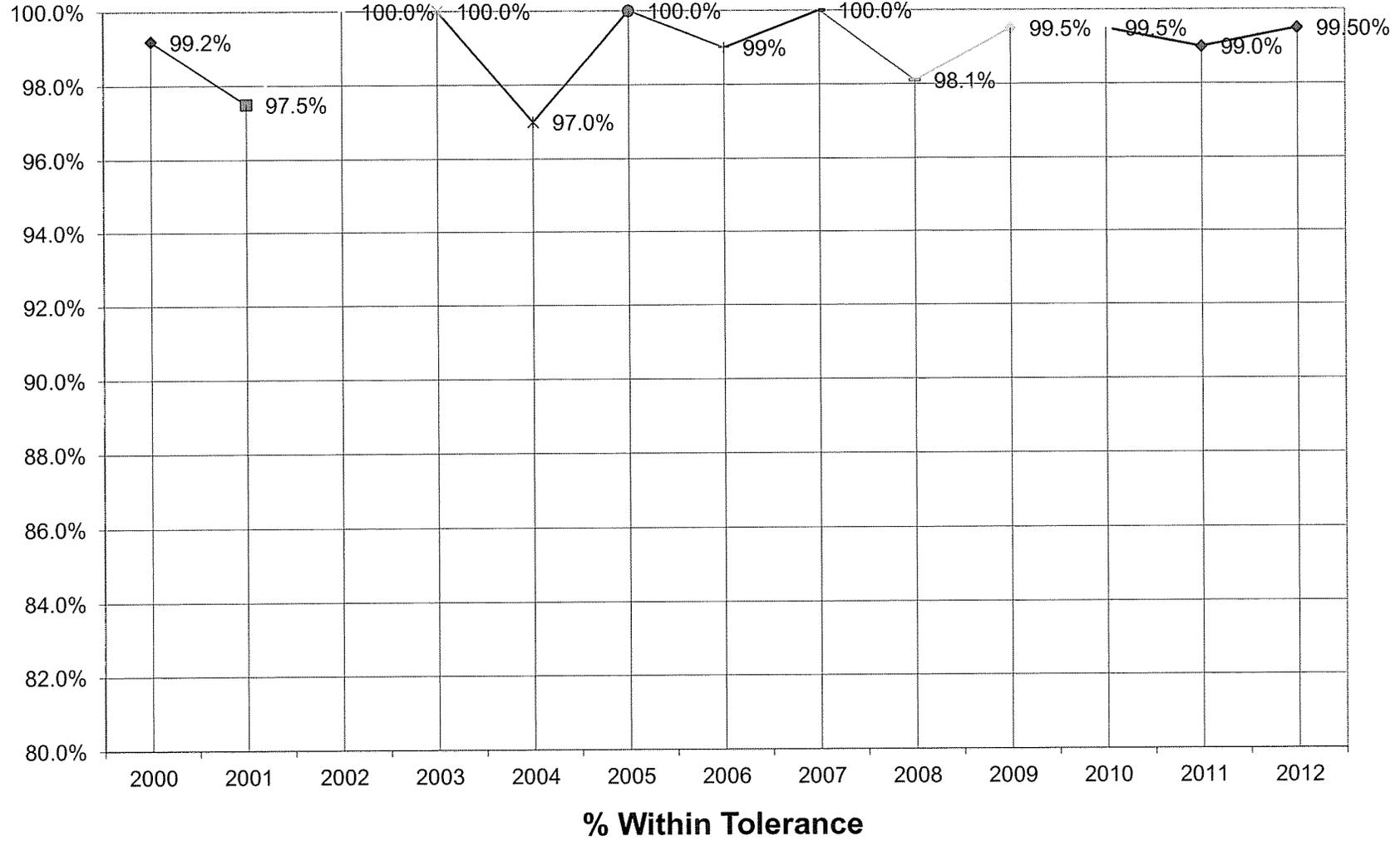
Columbia Gas  
of Kentucky



**% Within Tolerance**

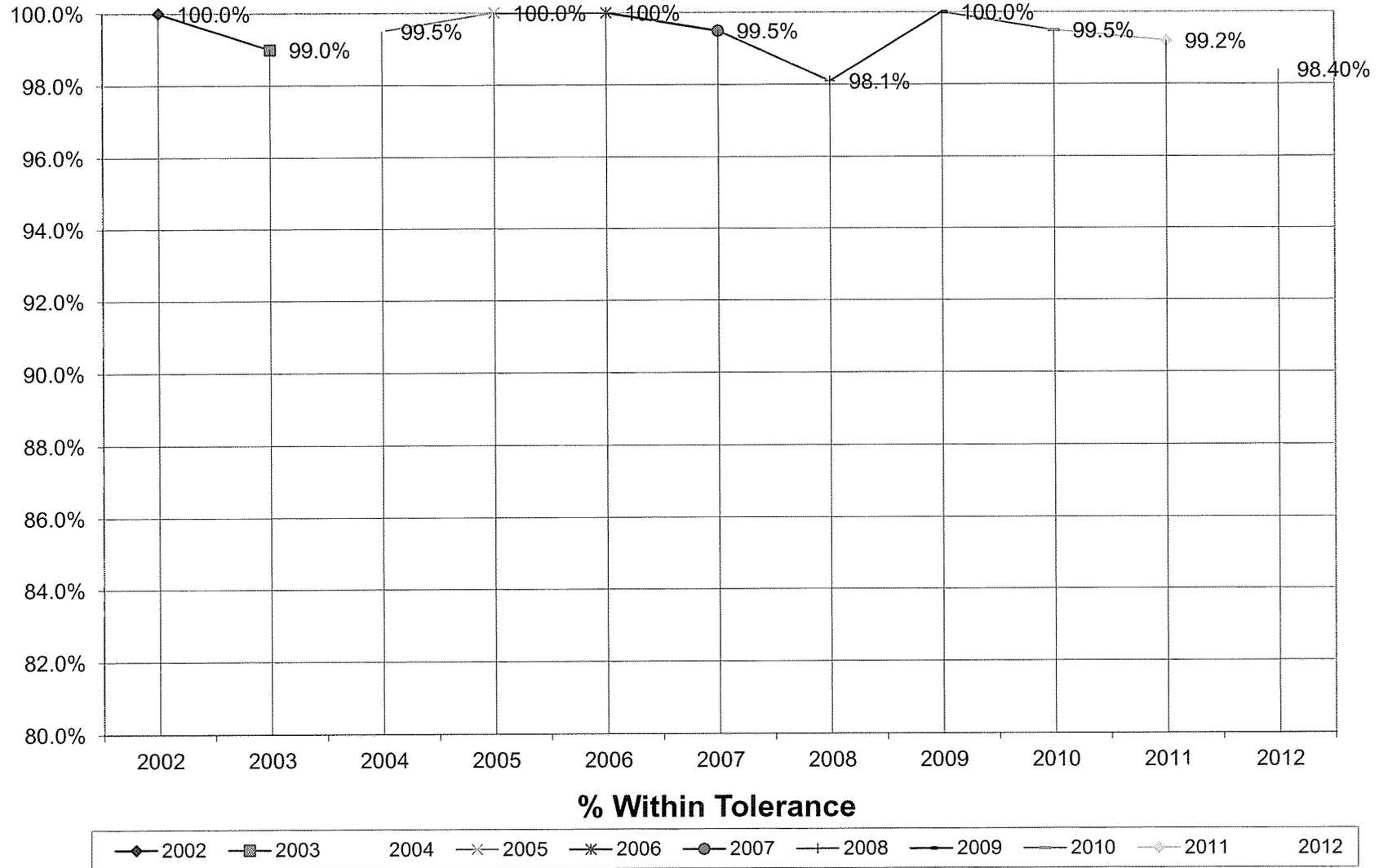
# NAM02

Columbia Gas  
of Kentucky

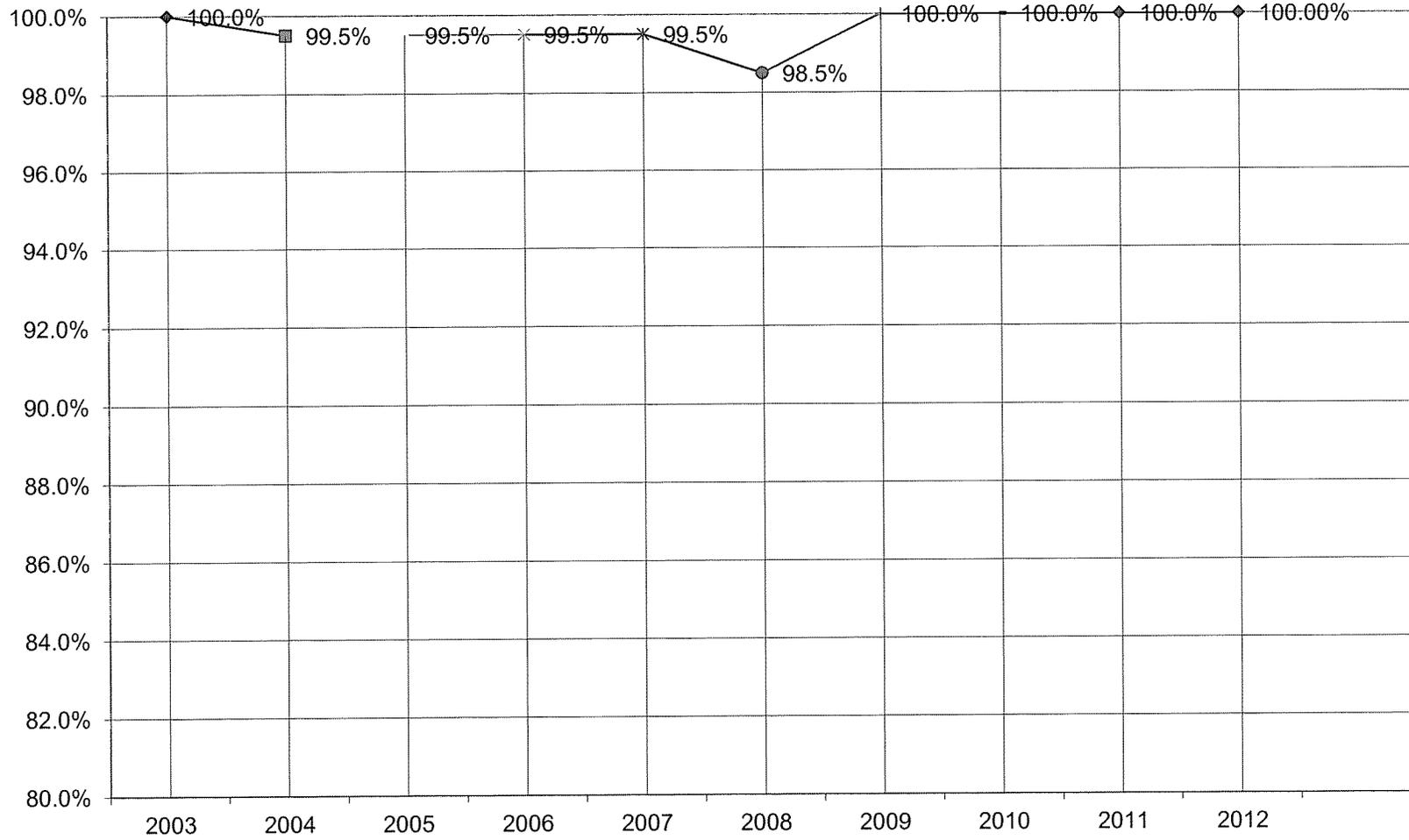


# NAM03

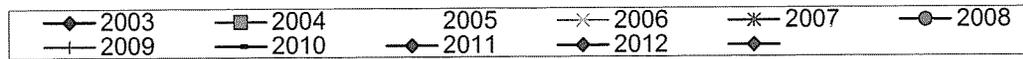
Columbia Gas  
of Kentucky



# NAM04

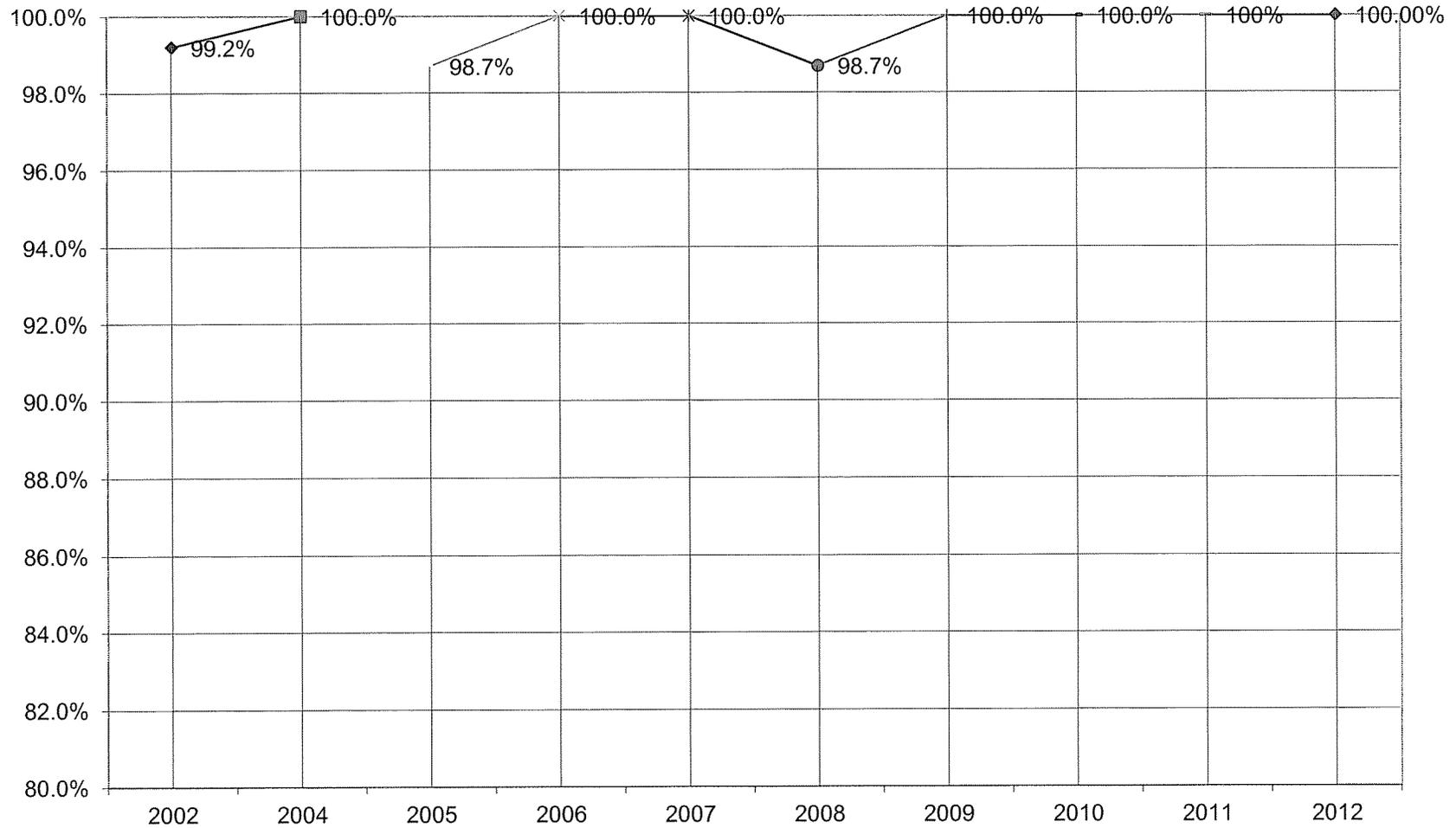


**% Within Tolerance**

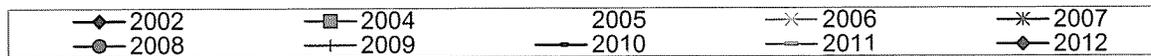


# NAM05

Columbia Gas  
of Kentucky

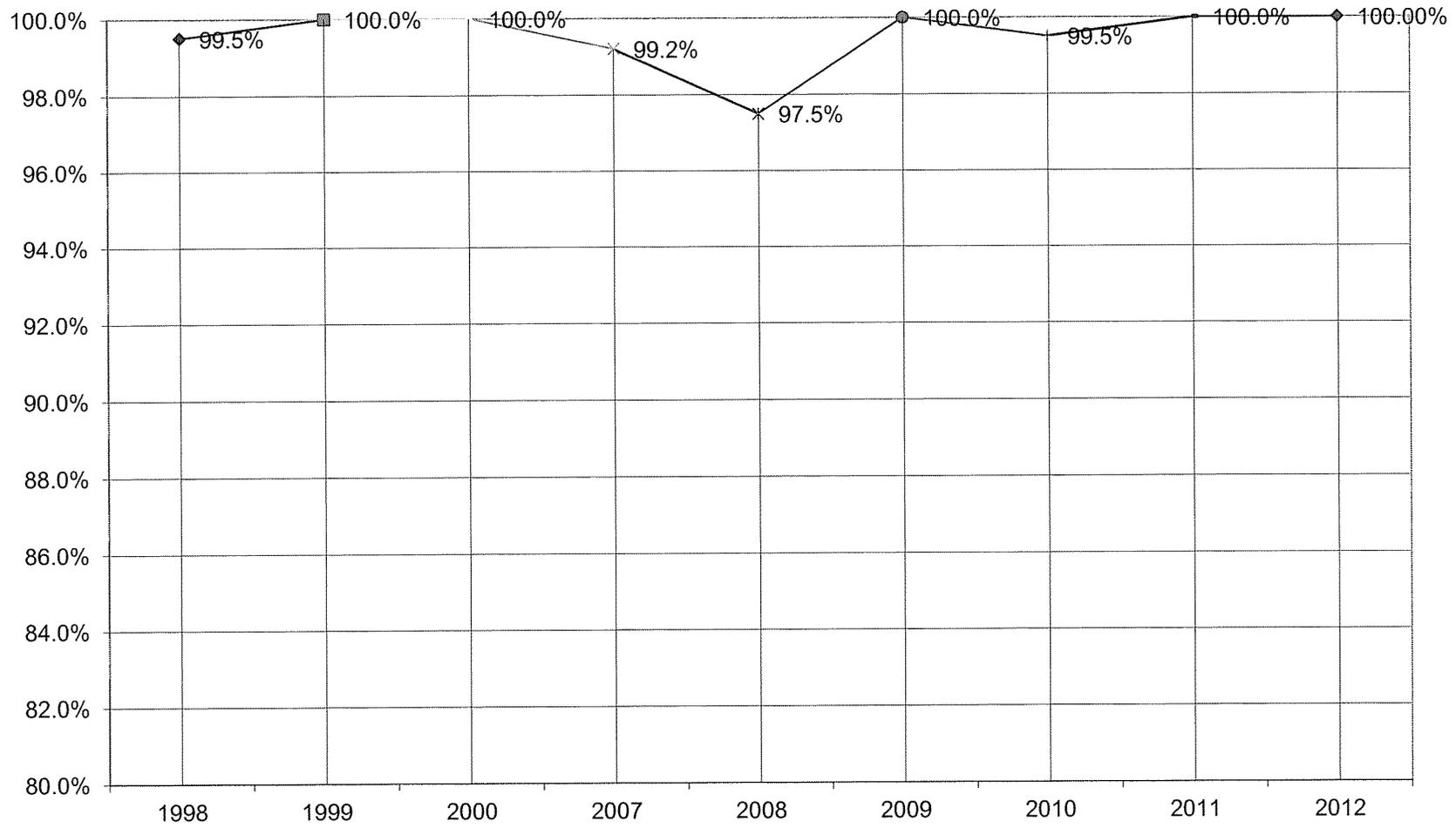


**% Within Tolerance**



# NAM06

Columbia Gas  
of Kentucky

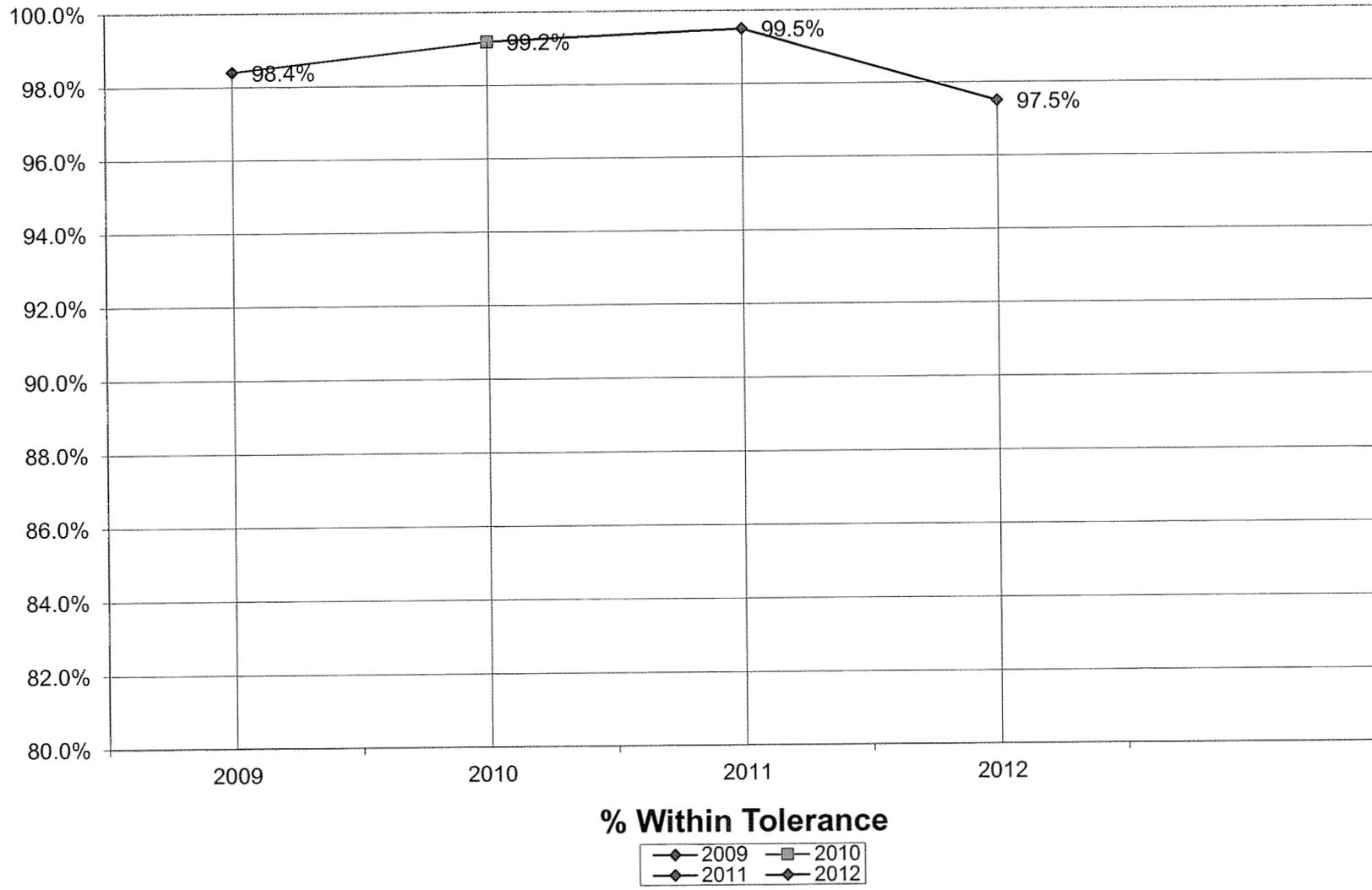


**% Within Tolerance**

◆ 1998	■ 1999	○ 2000	✕ 2007	✕ 2008
● 2009	+ 2010	— 2011	◆ 2012	

# NAM06A

Columbia Gas  
of Kentucky

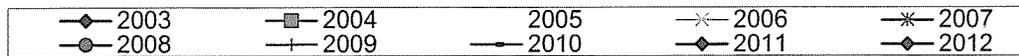


# NAM07

Columbia Gas  
of Kentucky

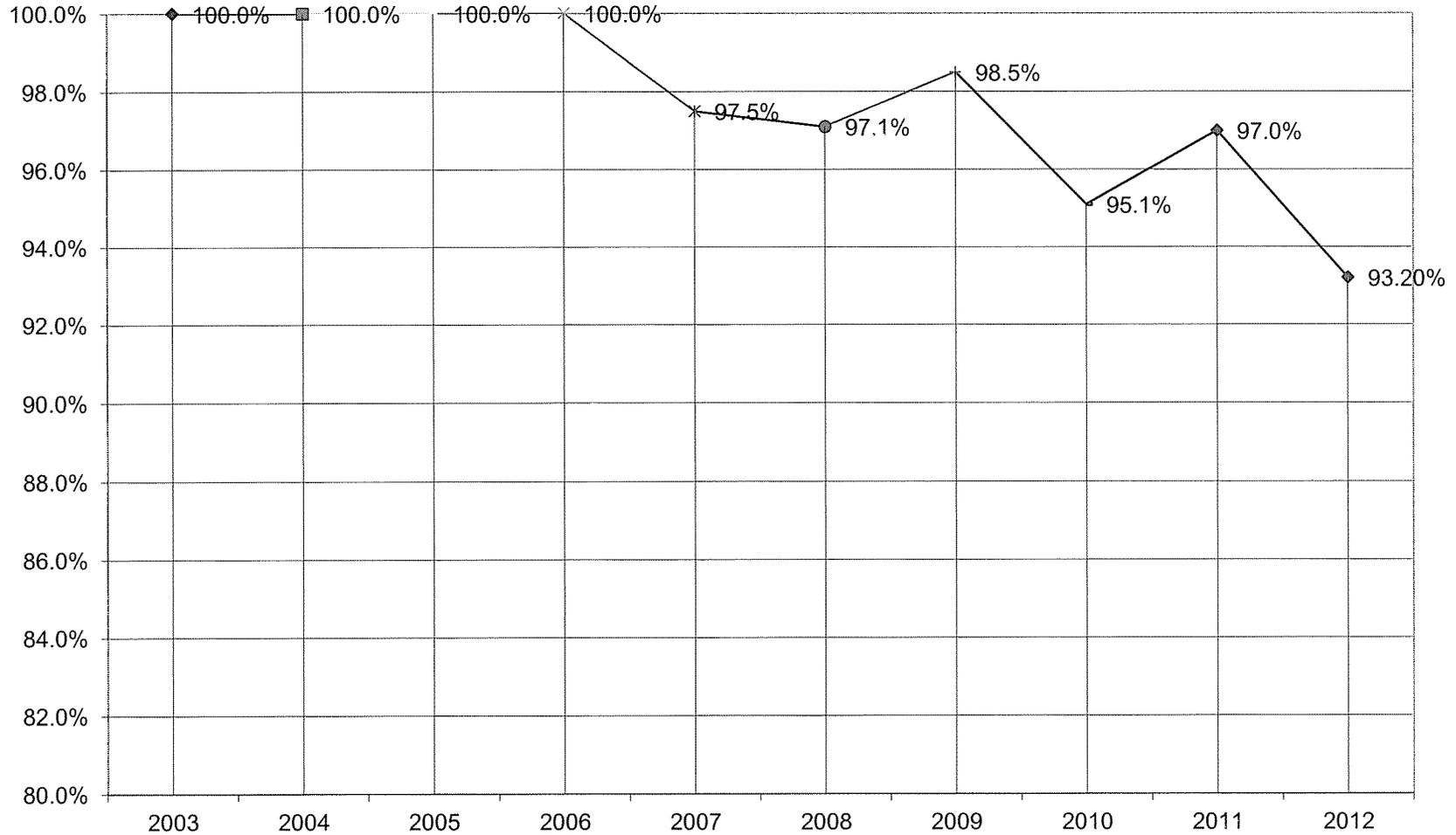


**% Within Tolerance**

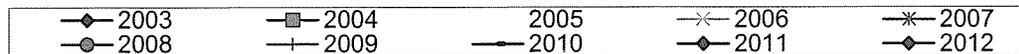


# NAM08

Columbia Gas  
of Kentucky

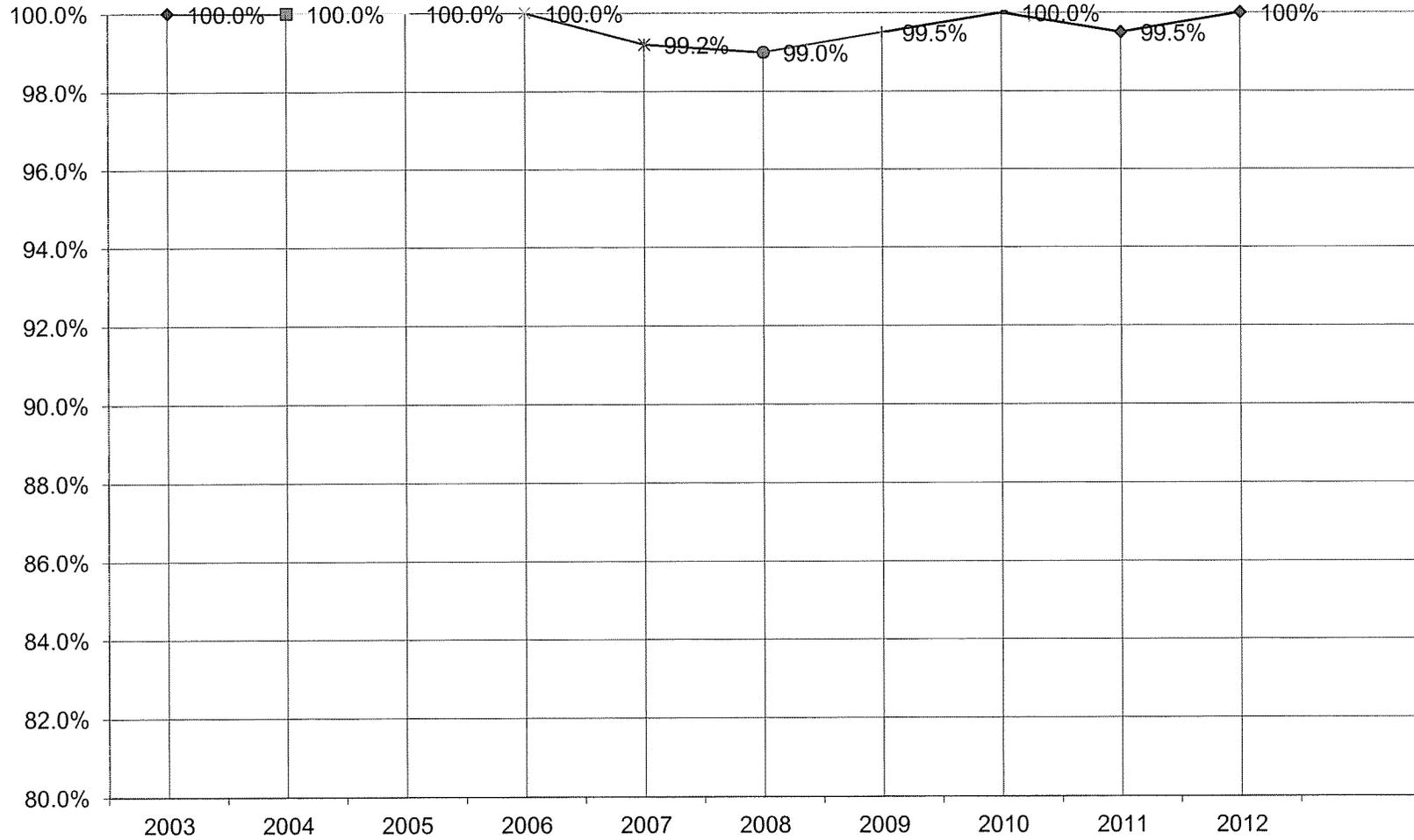


**% Within Tolerance**

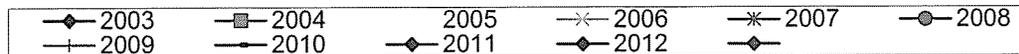


# NAM09

Columbia Gas  
of Kentucky

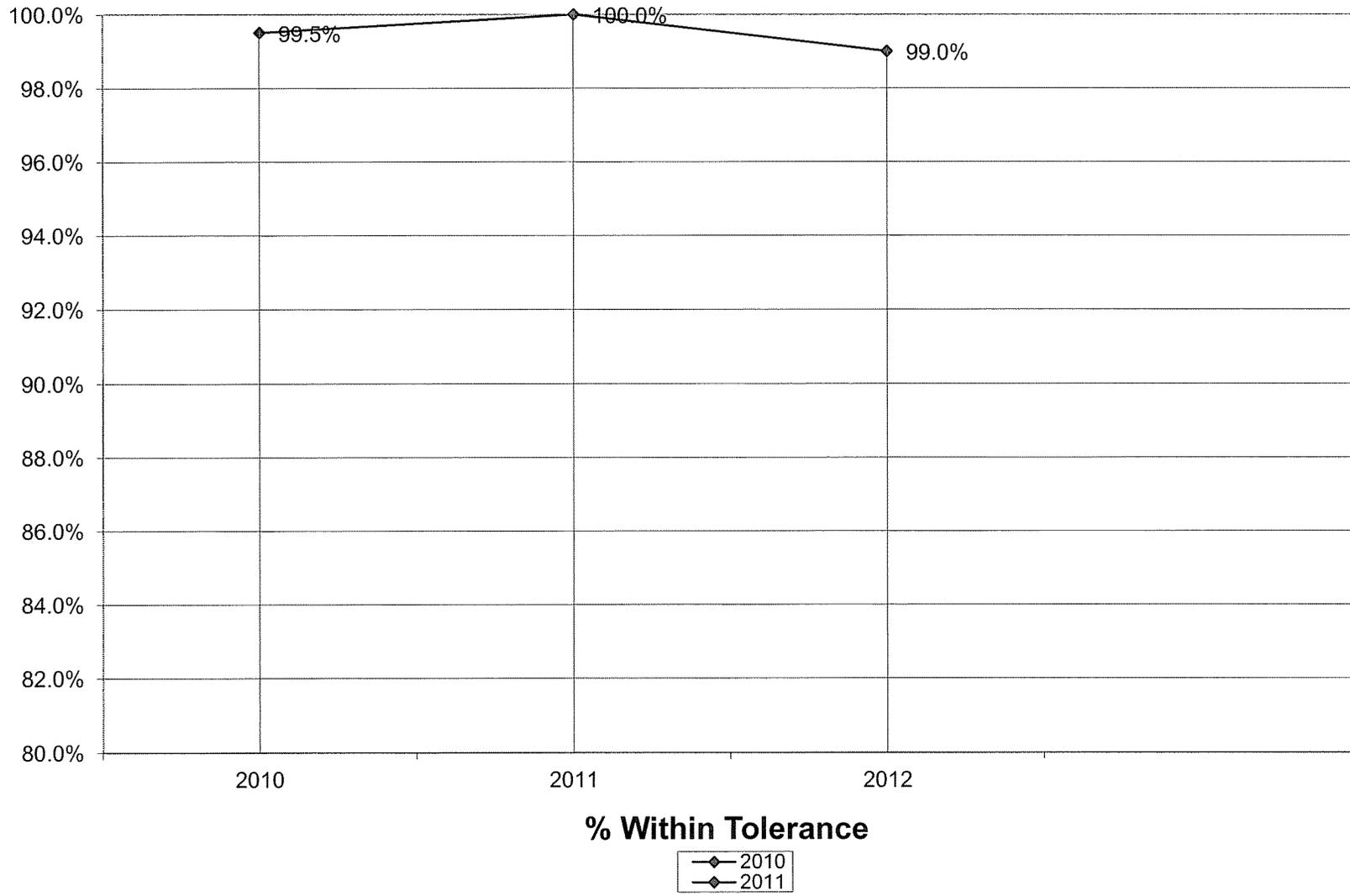


**% Within Tolerance**



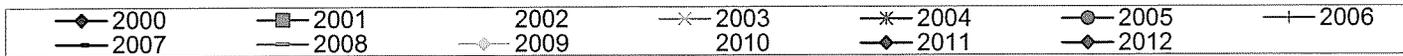
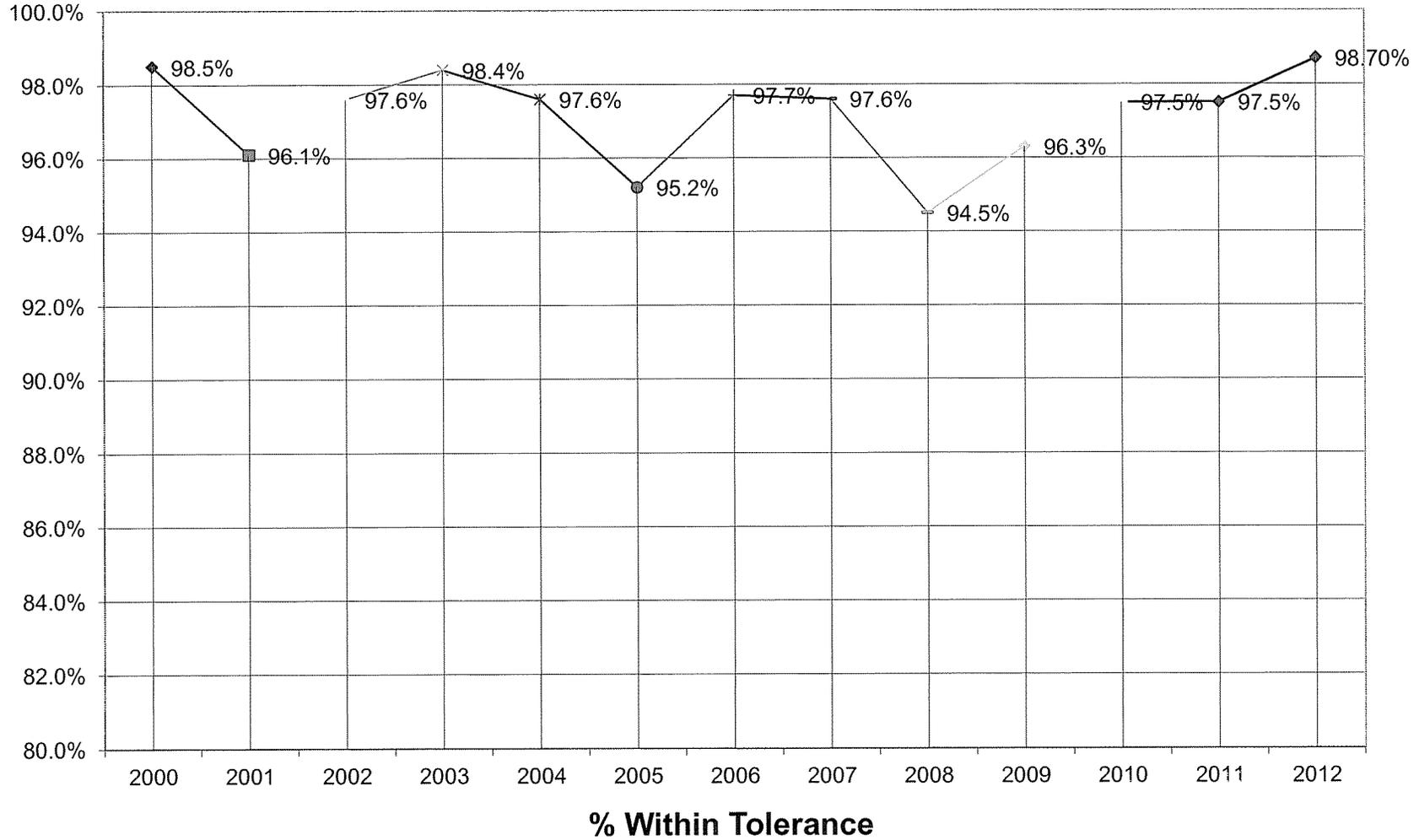
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Columbia Gas  
of Kentucky



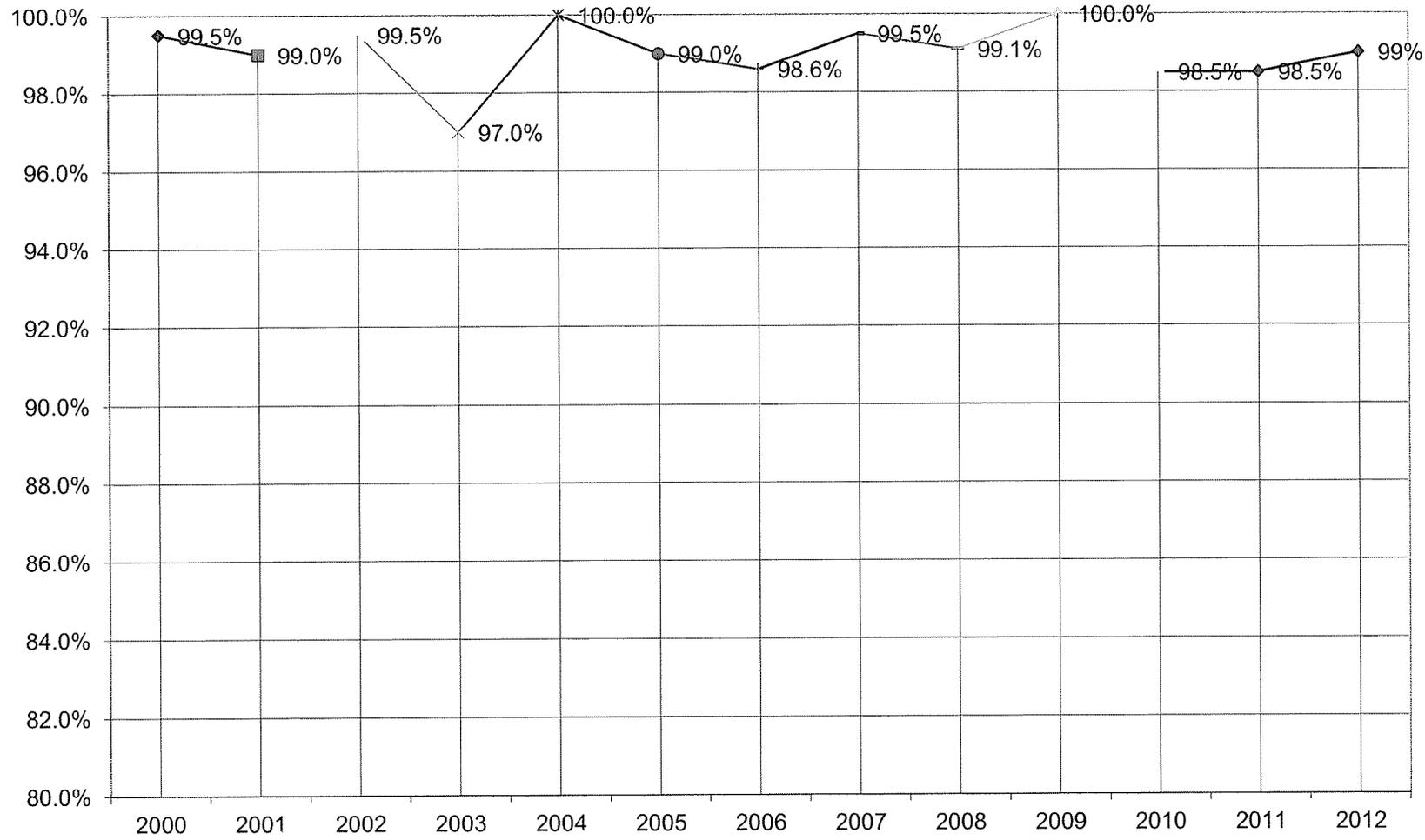
# NLA01

Columbia Gas  
of Kentucky

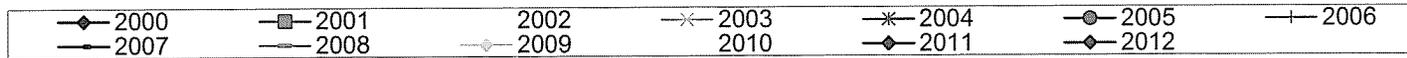


# NLA02

Columbia Gas  
of Kentucky

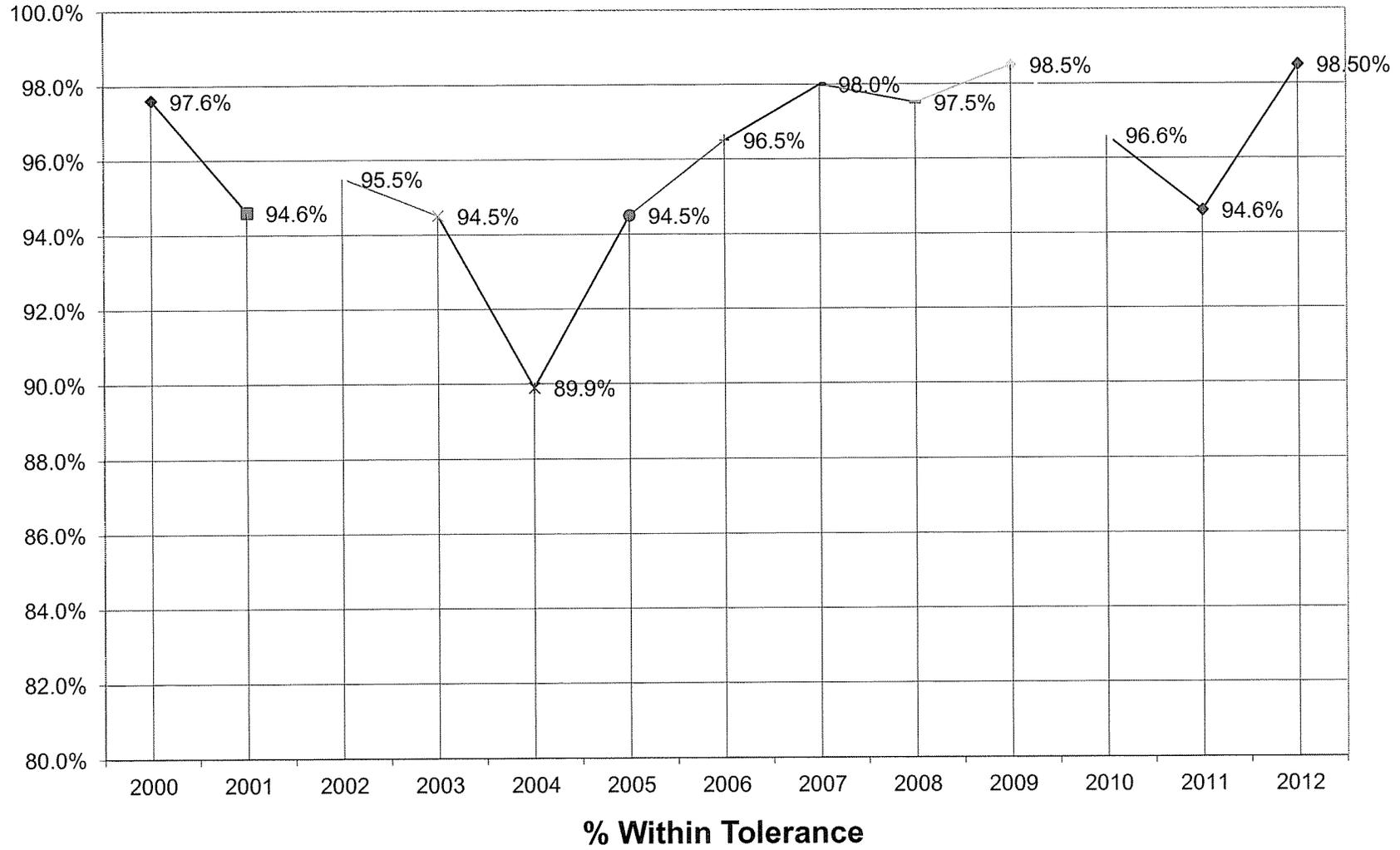


## % Within Tolerance



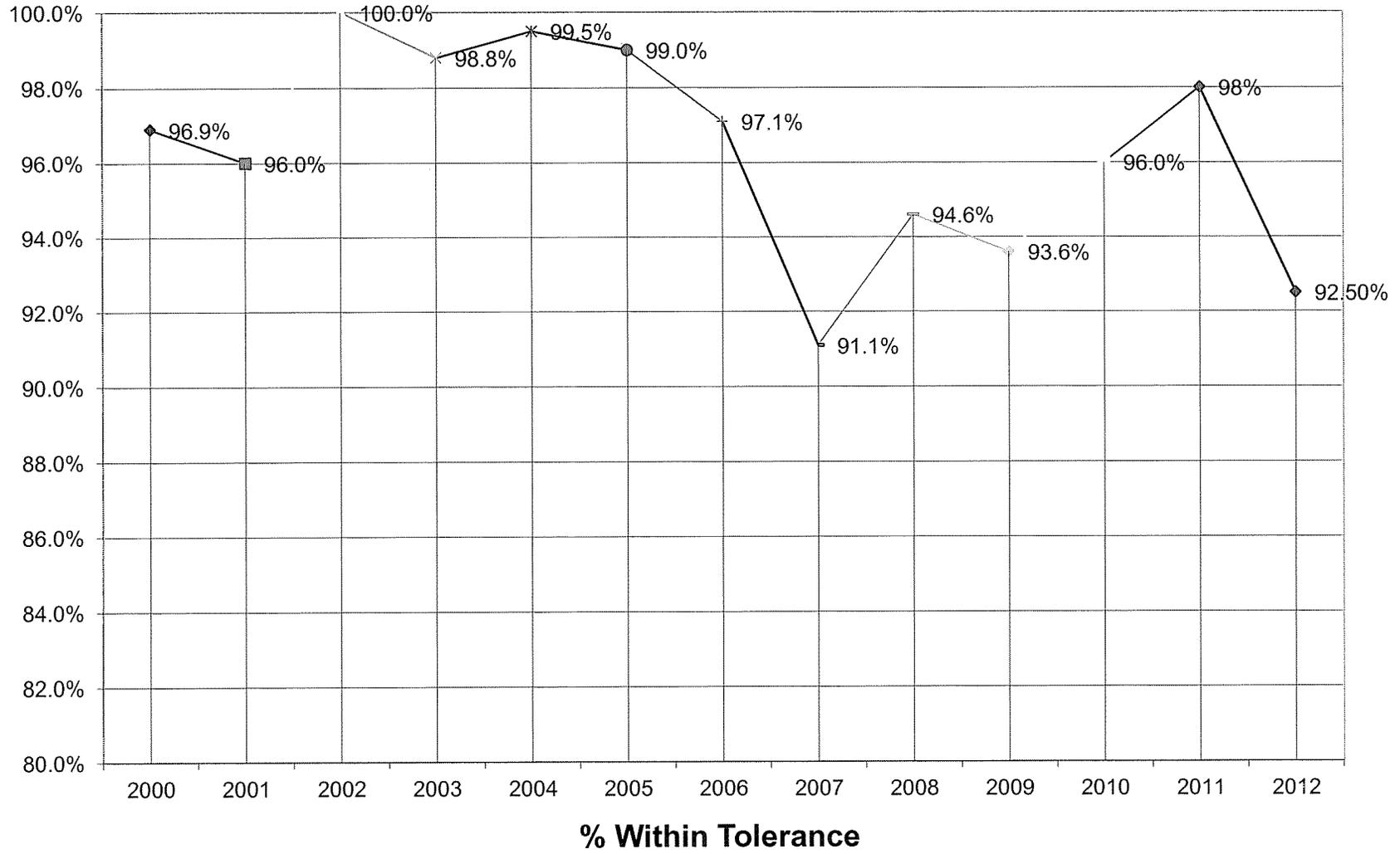
# NRO01

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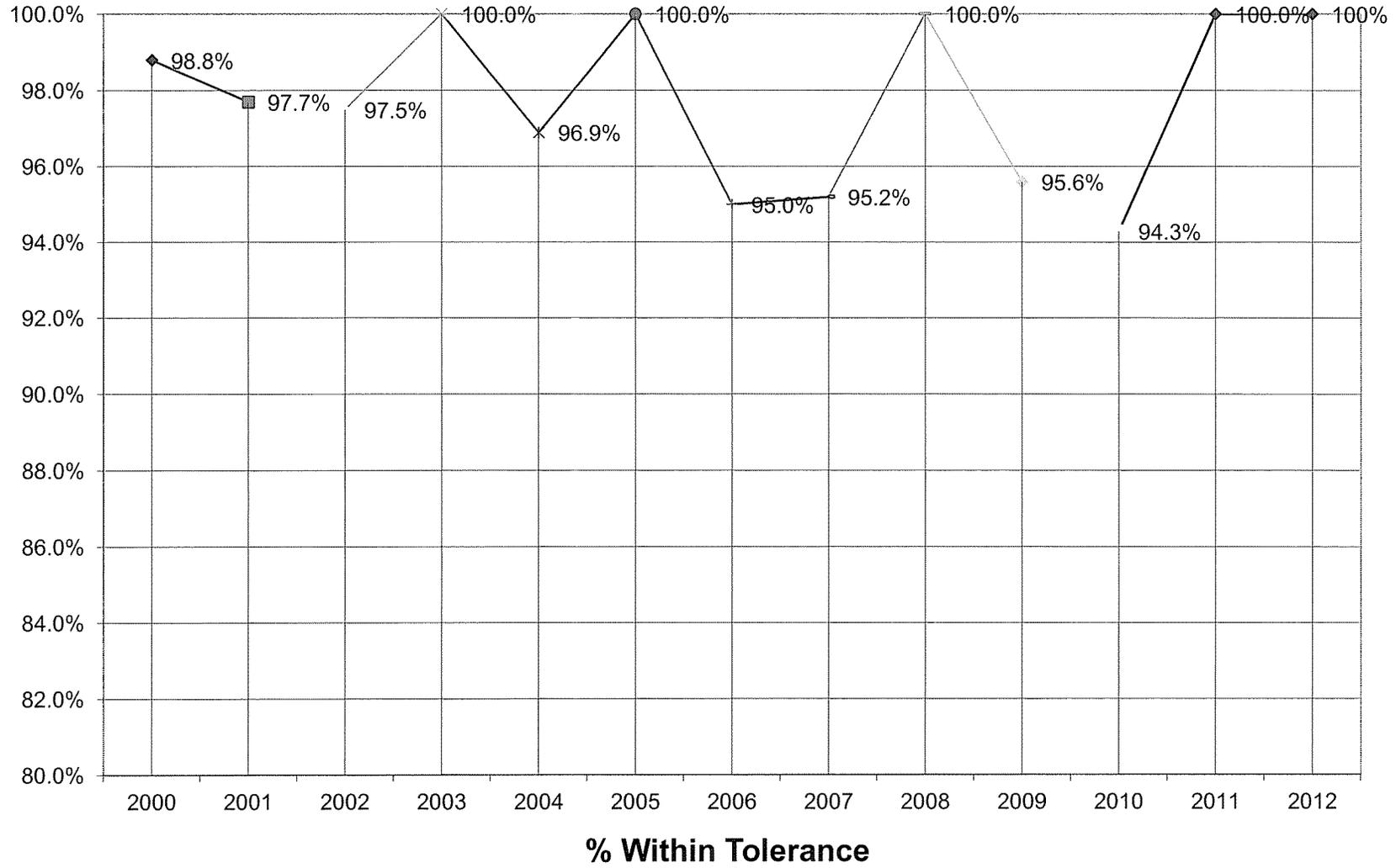
# NRO02

Columbia Gas  
of Kentucky



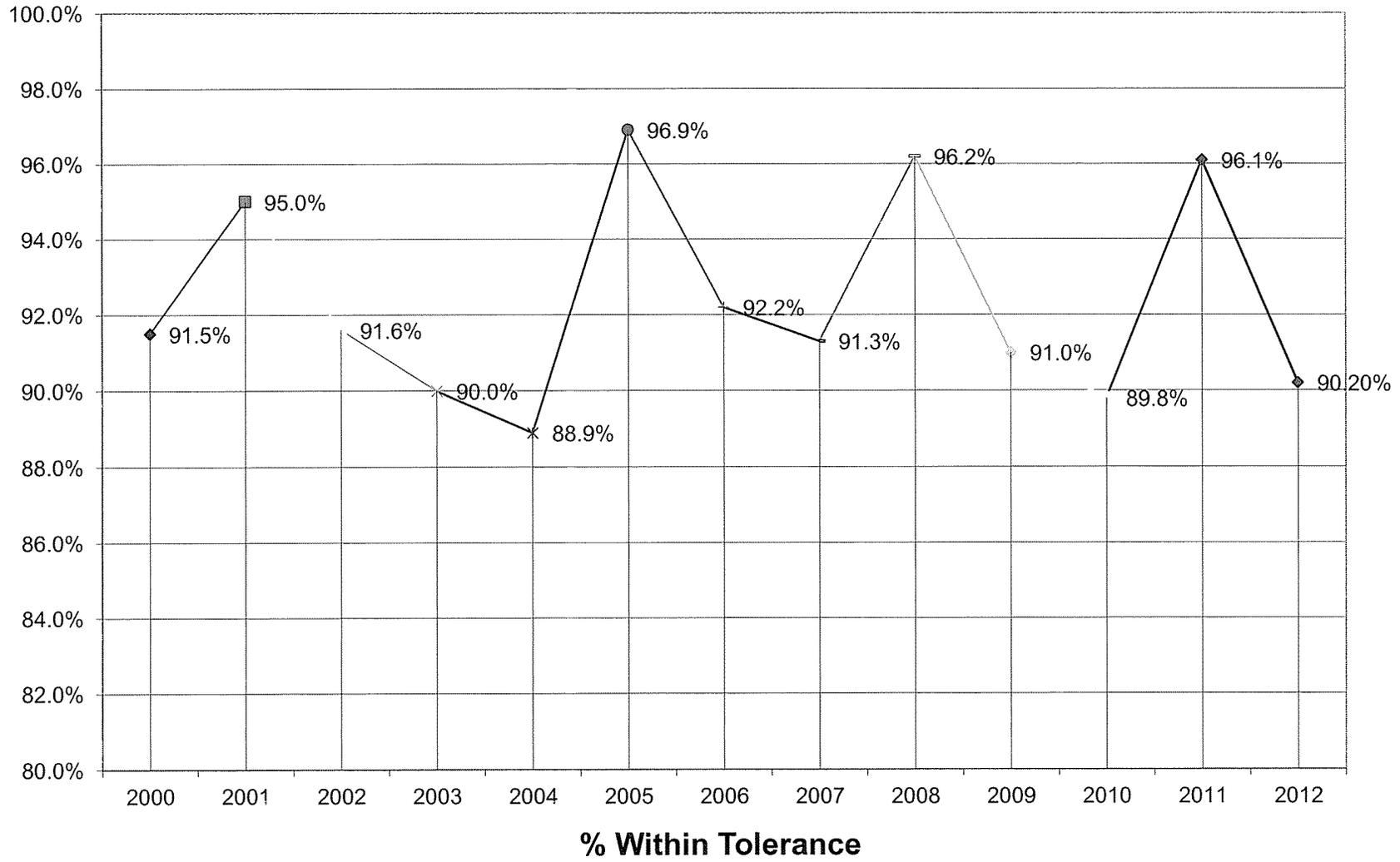
# NSP01

Columbia Gas  
of Kentucky



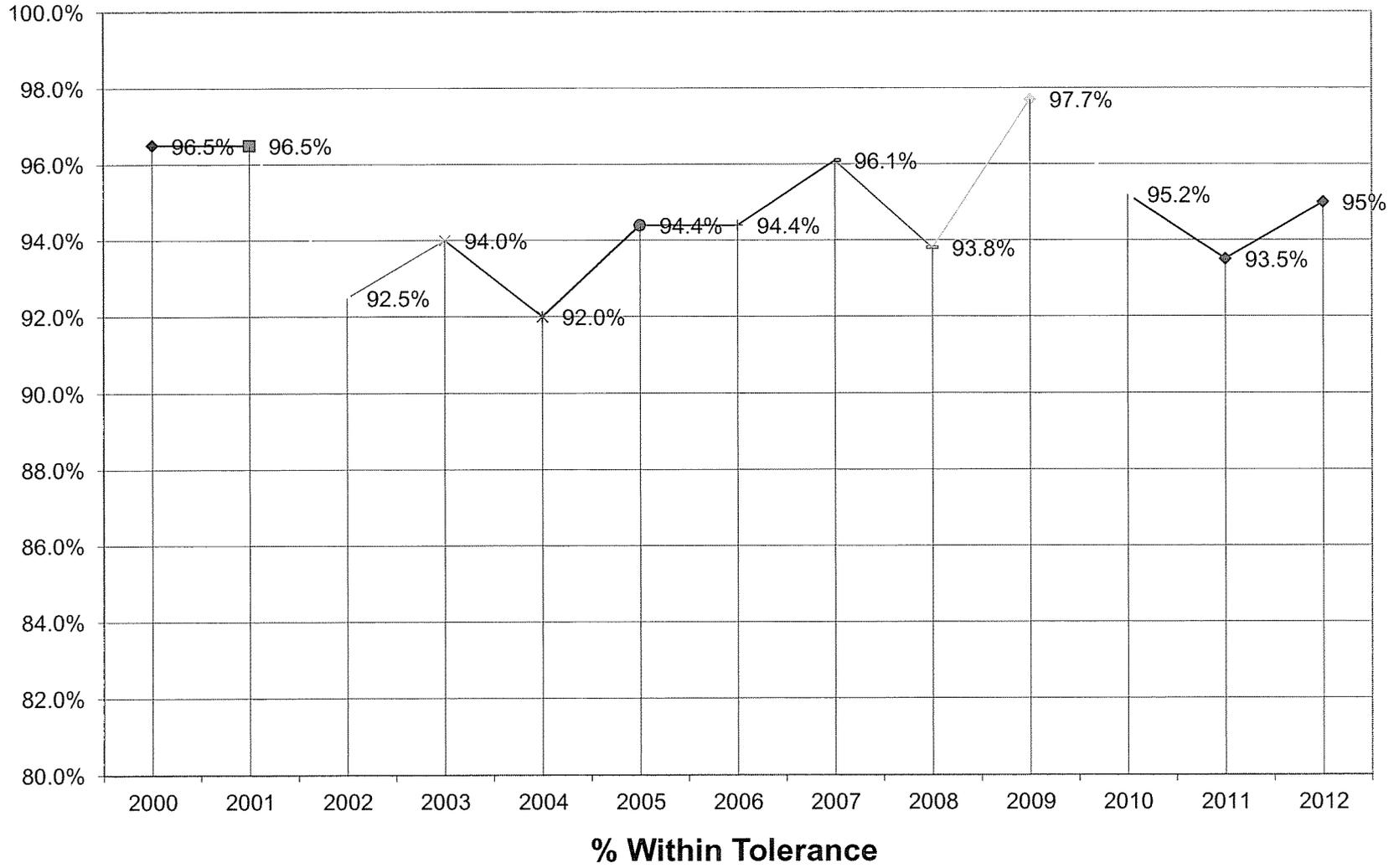
# RAM02

Columbia Gas  
of Kentucky



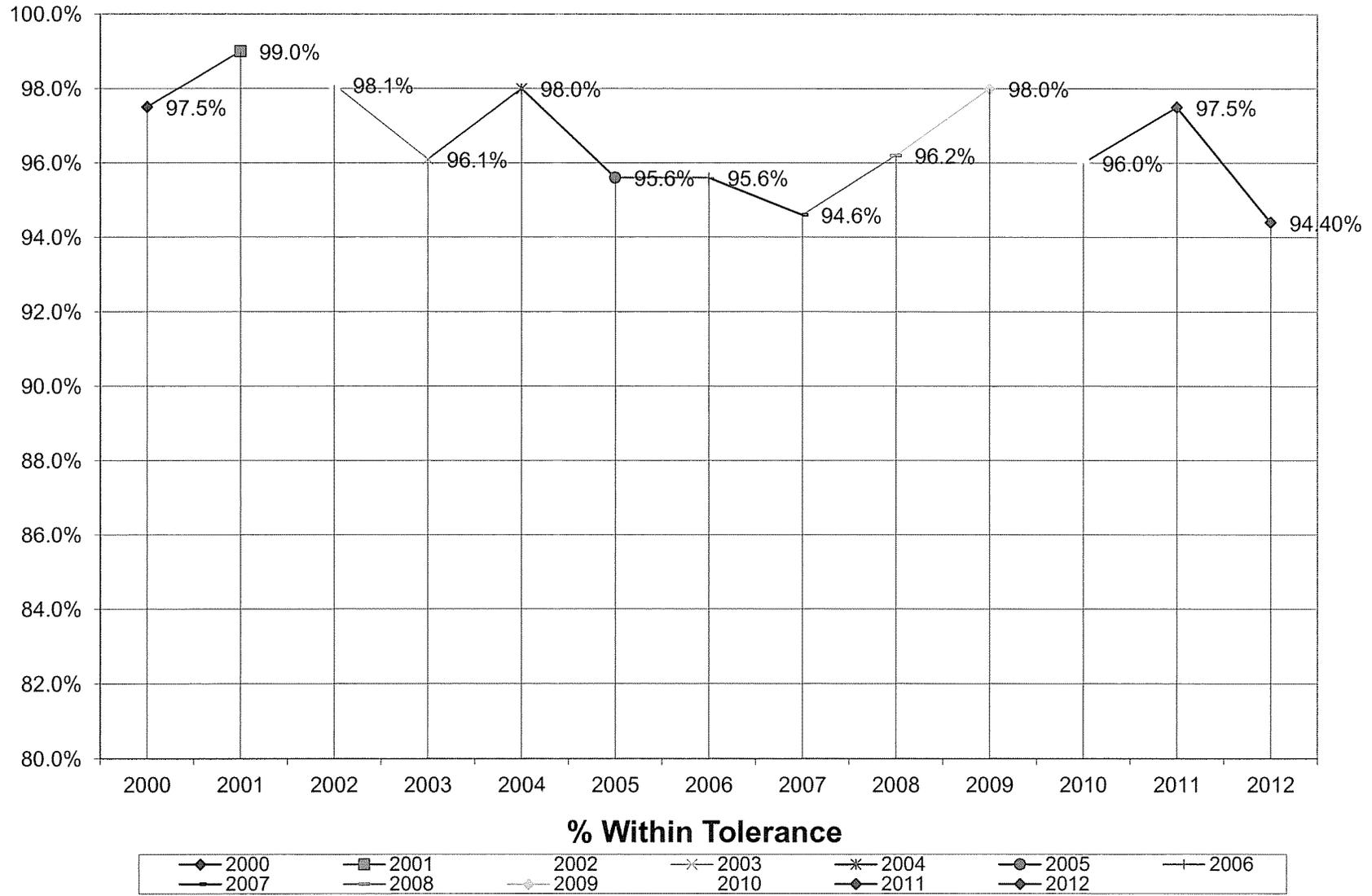
# RAM03

Columbia Gas  
of Kentucky



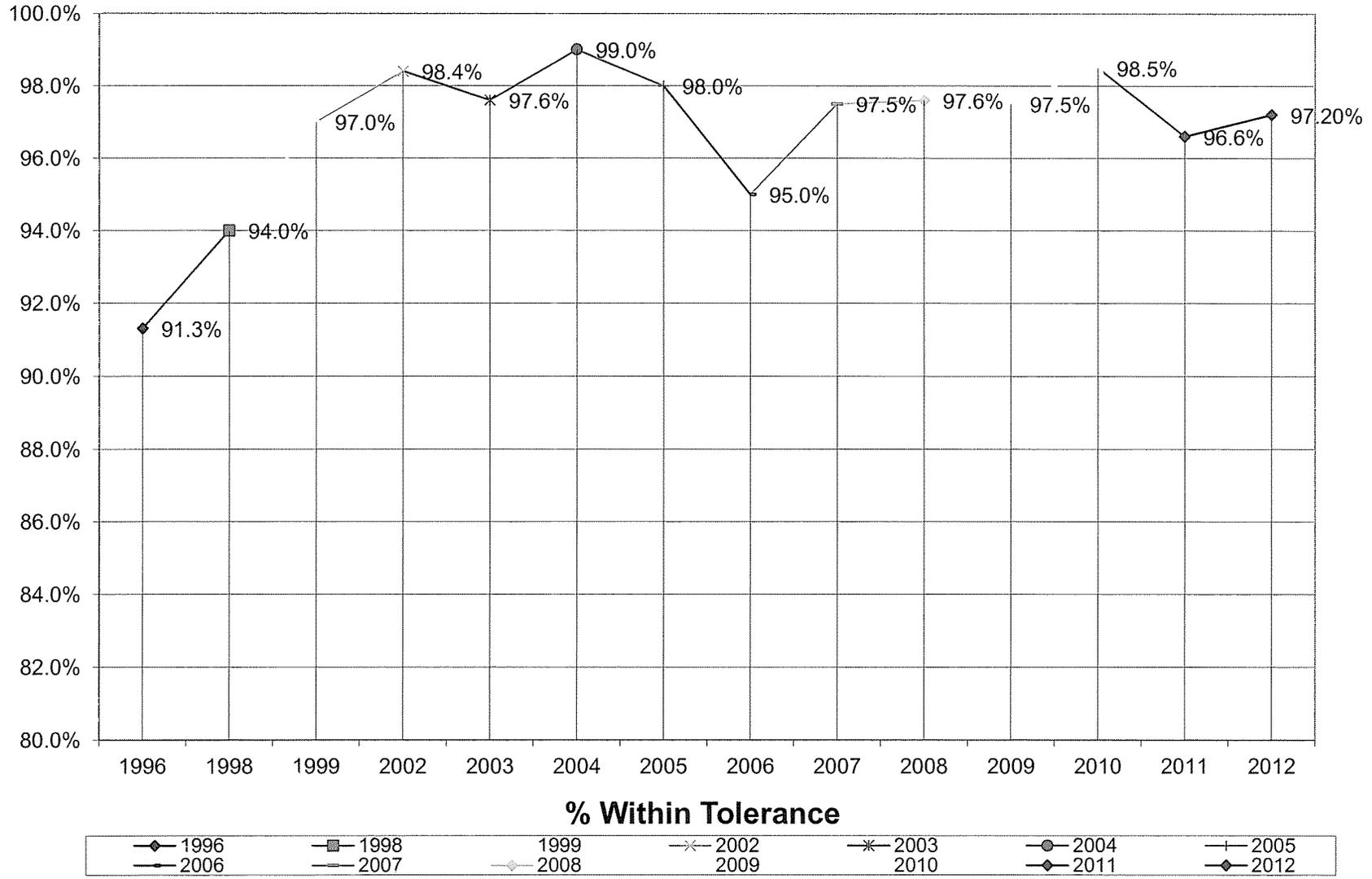
# RAM04

Columbia Gas  
of Kentucky



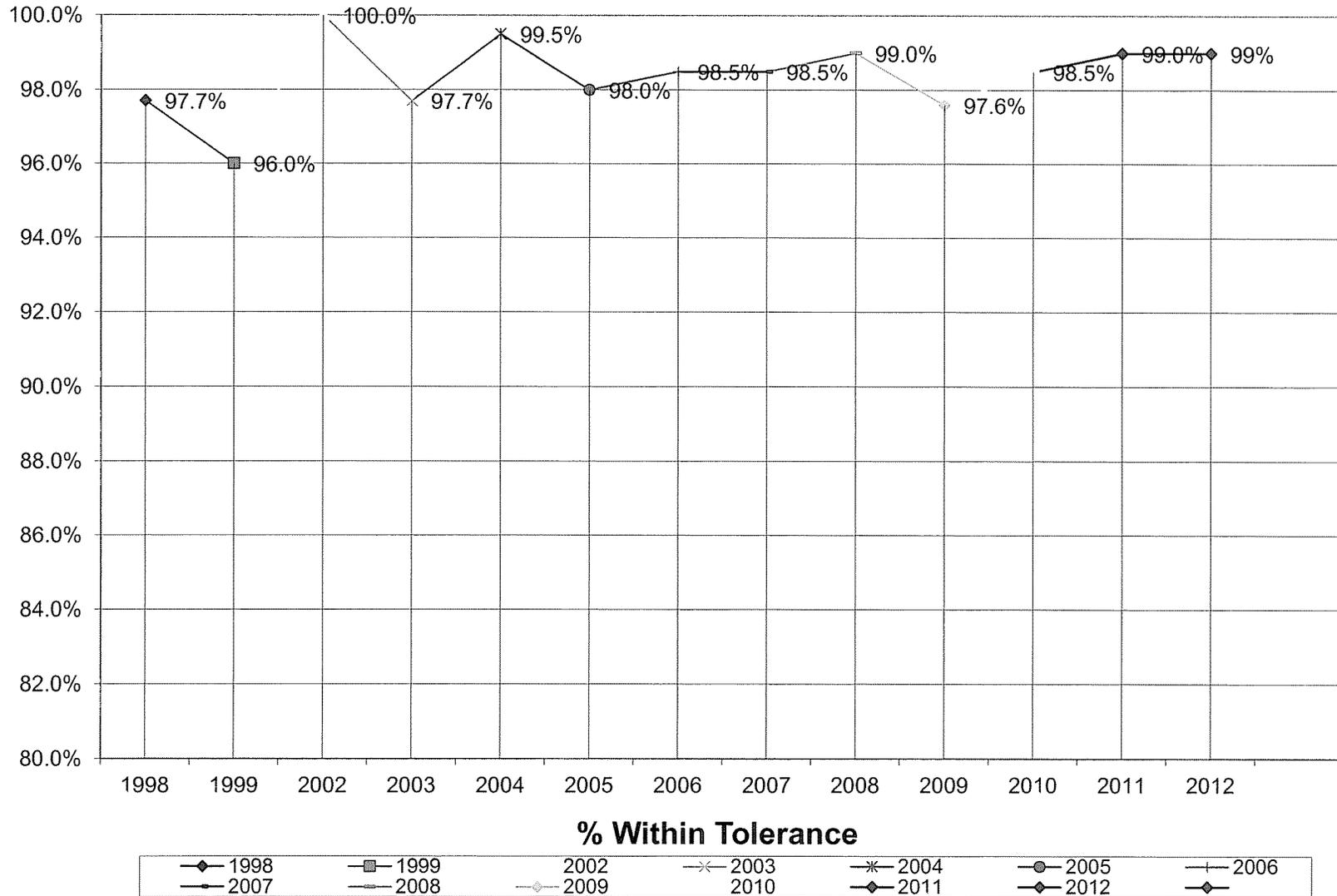
# RAM05

Columbia Gas  
of Kentucky



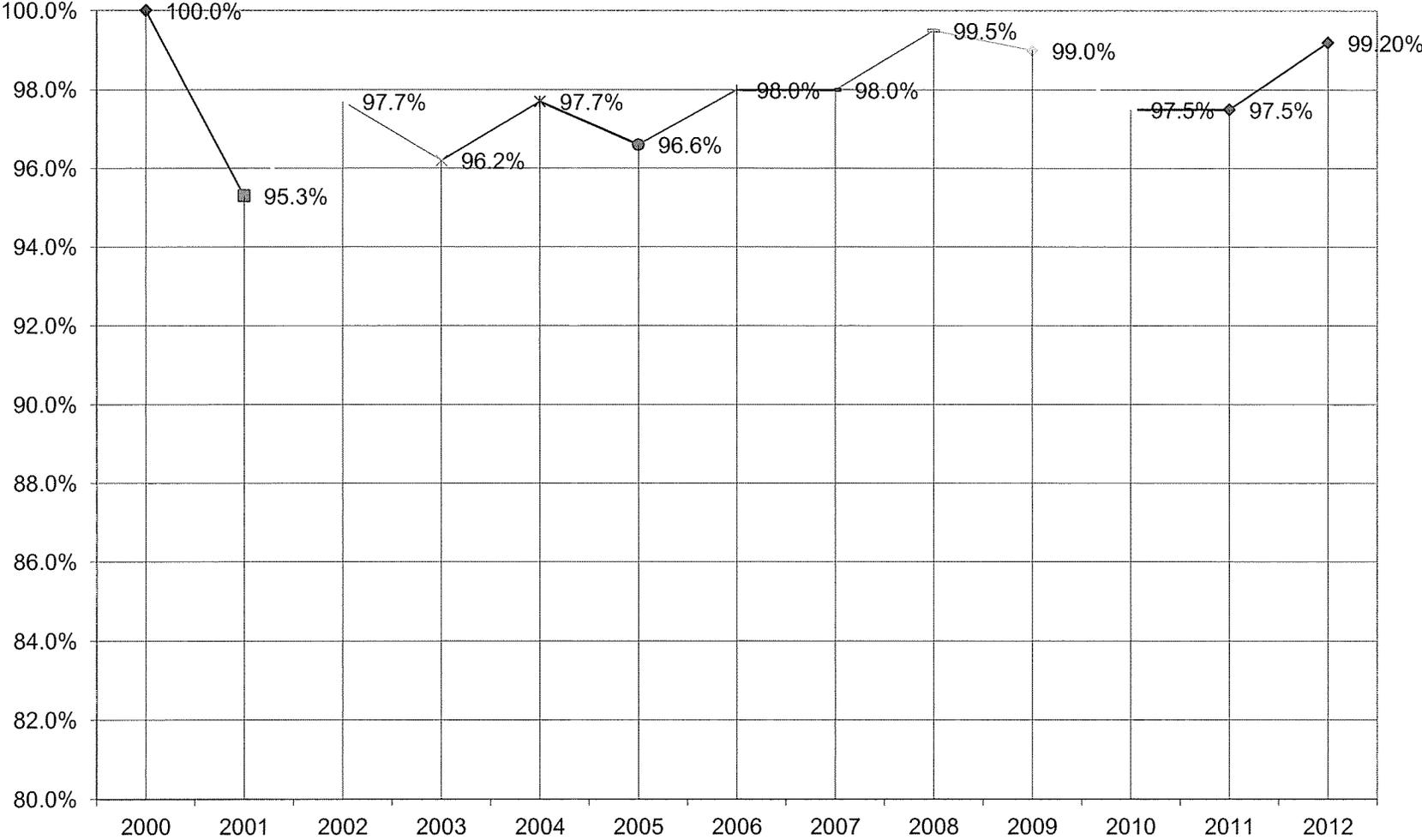
# RAM06

Columbia Gas  
of Kentucky



# RLA03

Columbia Gas  
of Kentucky

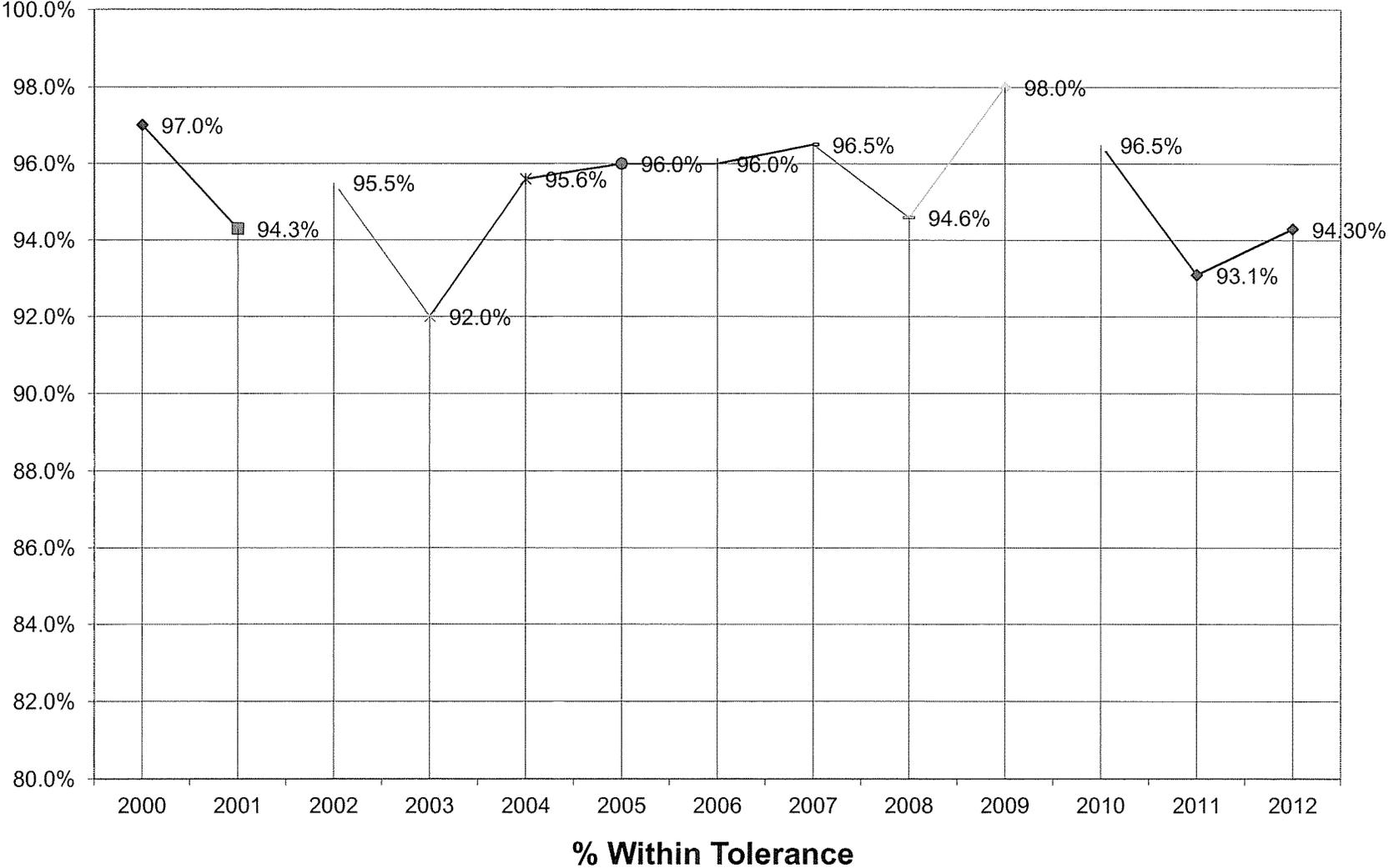


**% Within Tolerance**

◆ 2000	■ 2001	○ 2002	✕ 2003	✱ 2004	● 2005	— 2006
— 2007	— 2008	— 2009	— 2010	◆ 2011	◆ 2012	

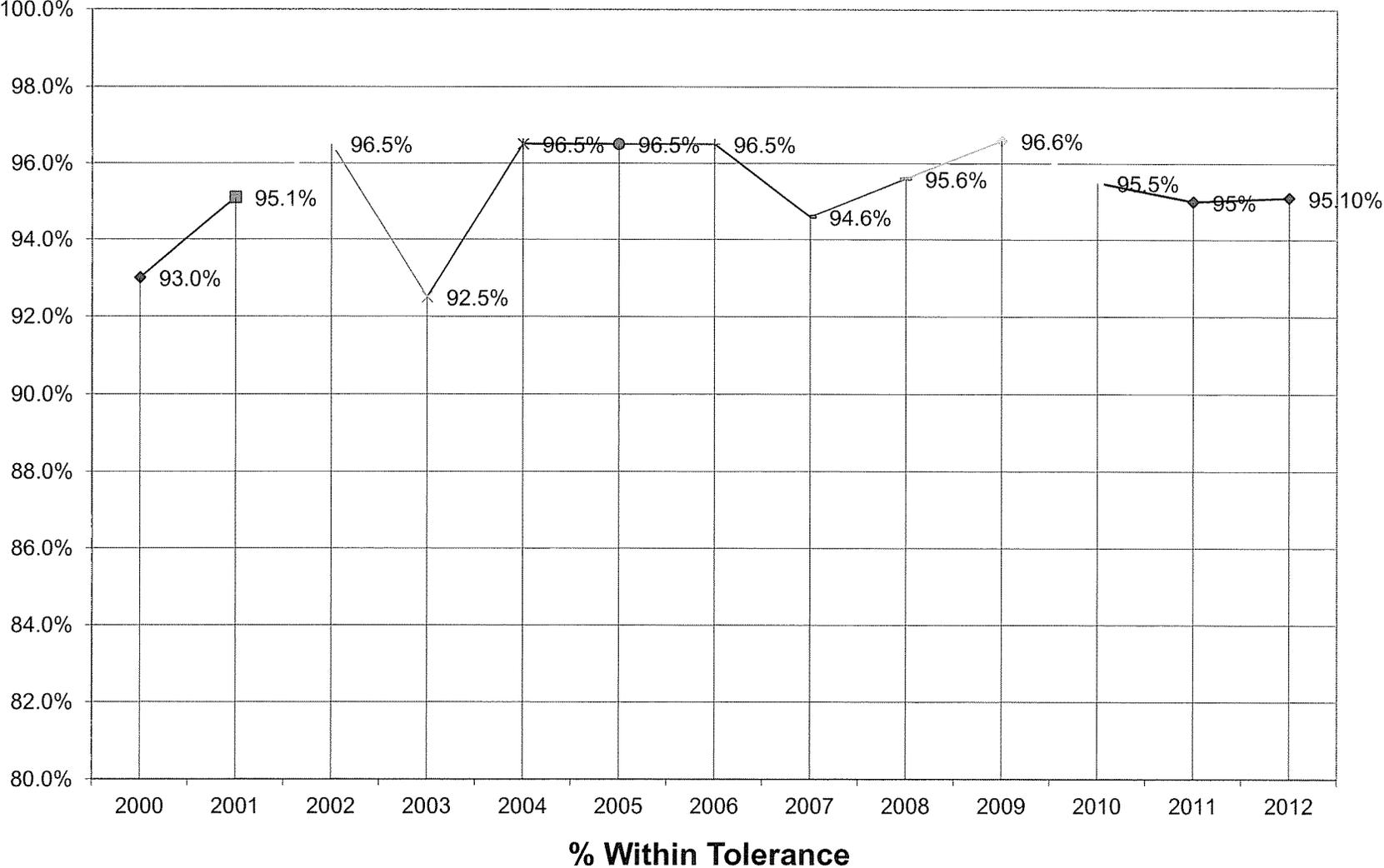
# RR001

Columbia Gas  
of Kentucky



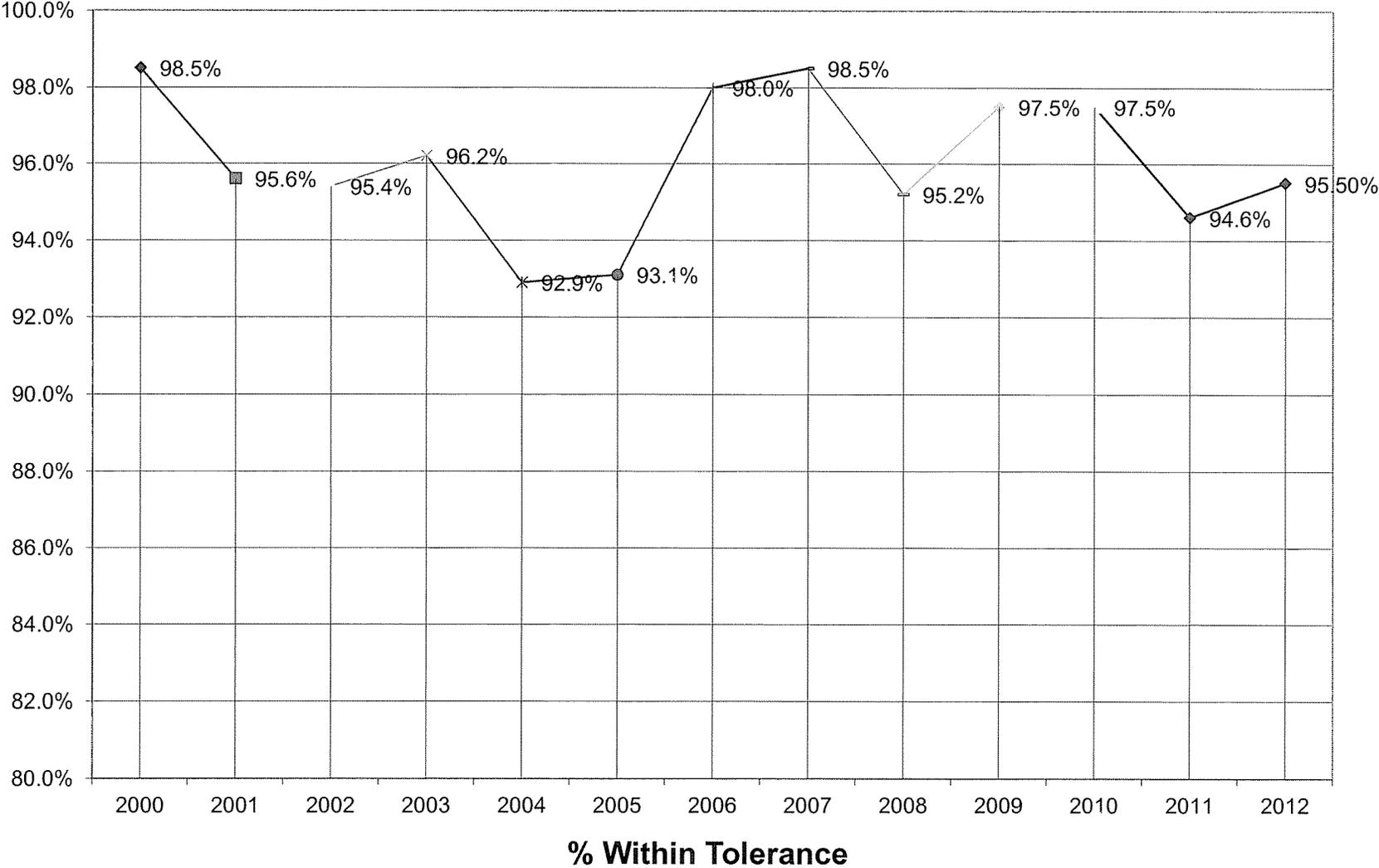
# RRO02

Columbia Gas  
of Kentucky



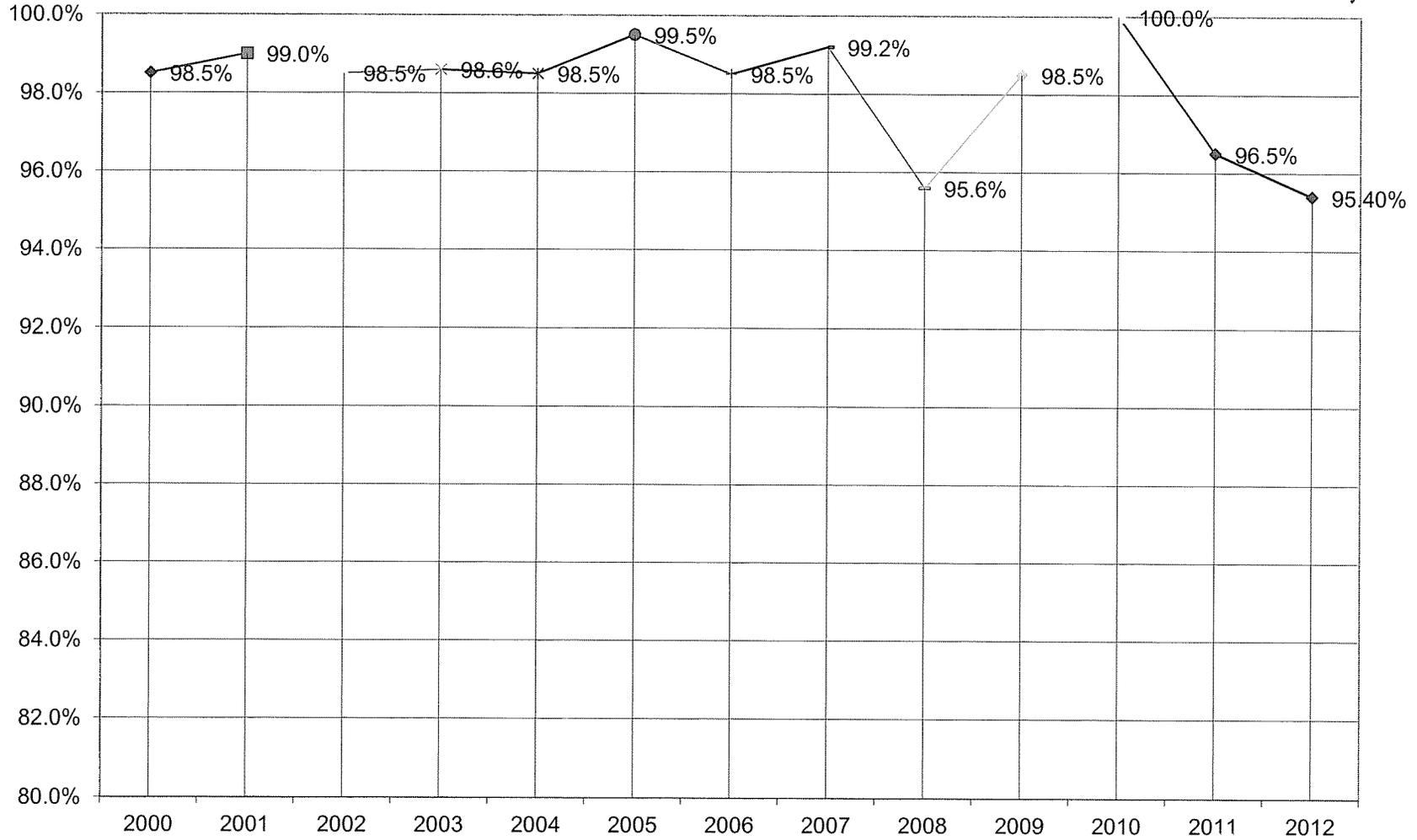
# RRO03

Columbia Gas  
of Kentucky

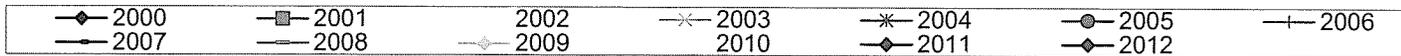


# RRO04

Columbia Gas  
of Kentucky

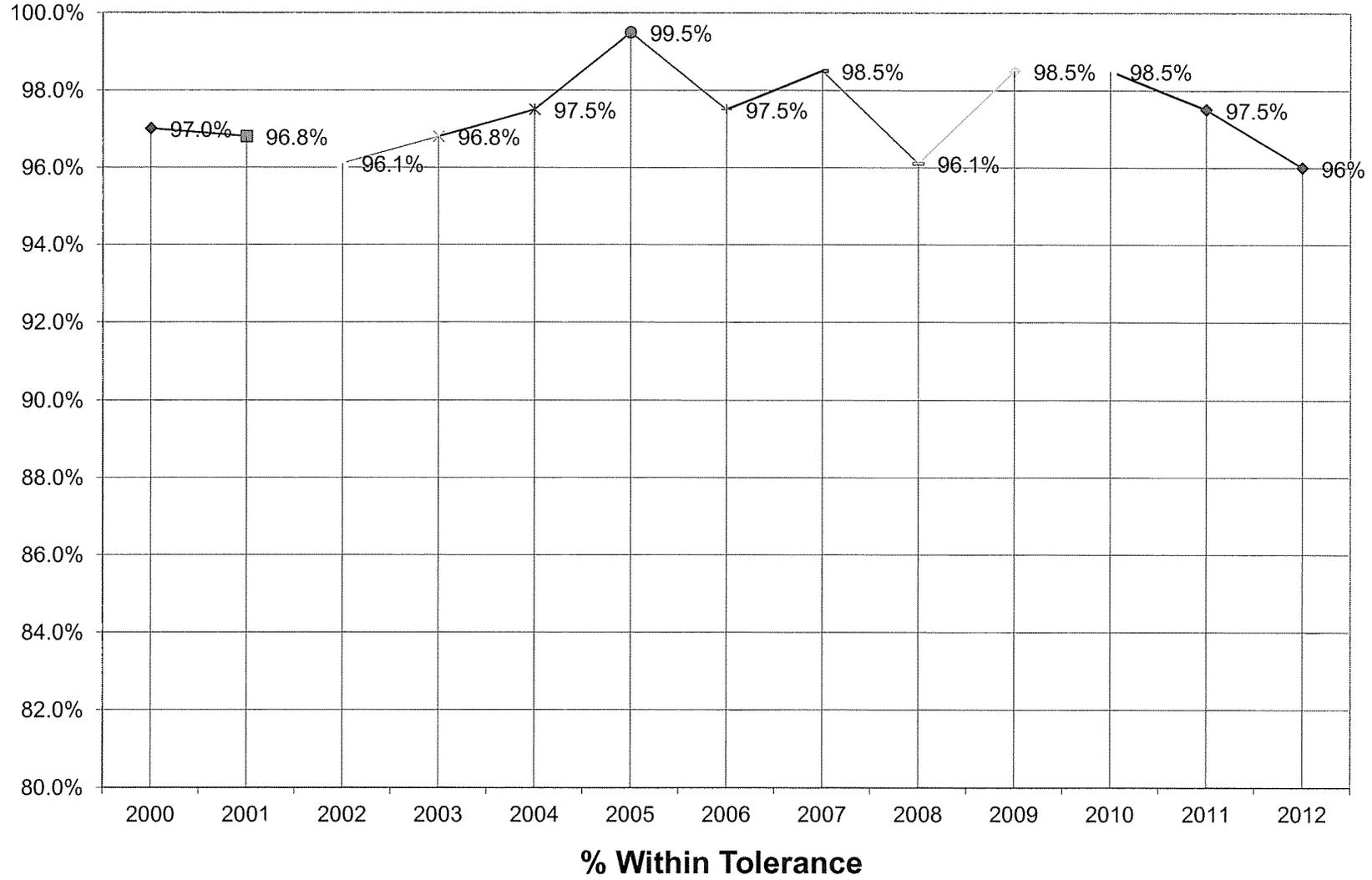


**% Within Tolerance**



# RSP01

Columbia Gas  
of Kentucky



**EXHIBIT E**

**PERCENTAGE OF LARGE VOLUME METER  
ACCURACY BY FAMILY**

**Exhibit E - represents the percentage of Large Volume meters sampled in 2012 that were within the +/- 2% rate, identified by homogenous group. We also show previous results of meter families sampled in prior years.**

**BRAM01 = Repaired American meters installed between 2001 & 2010**

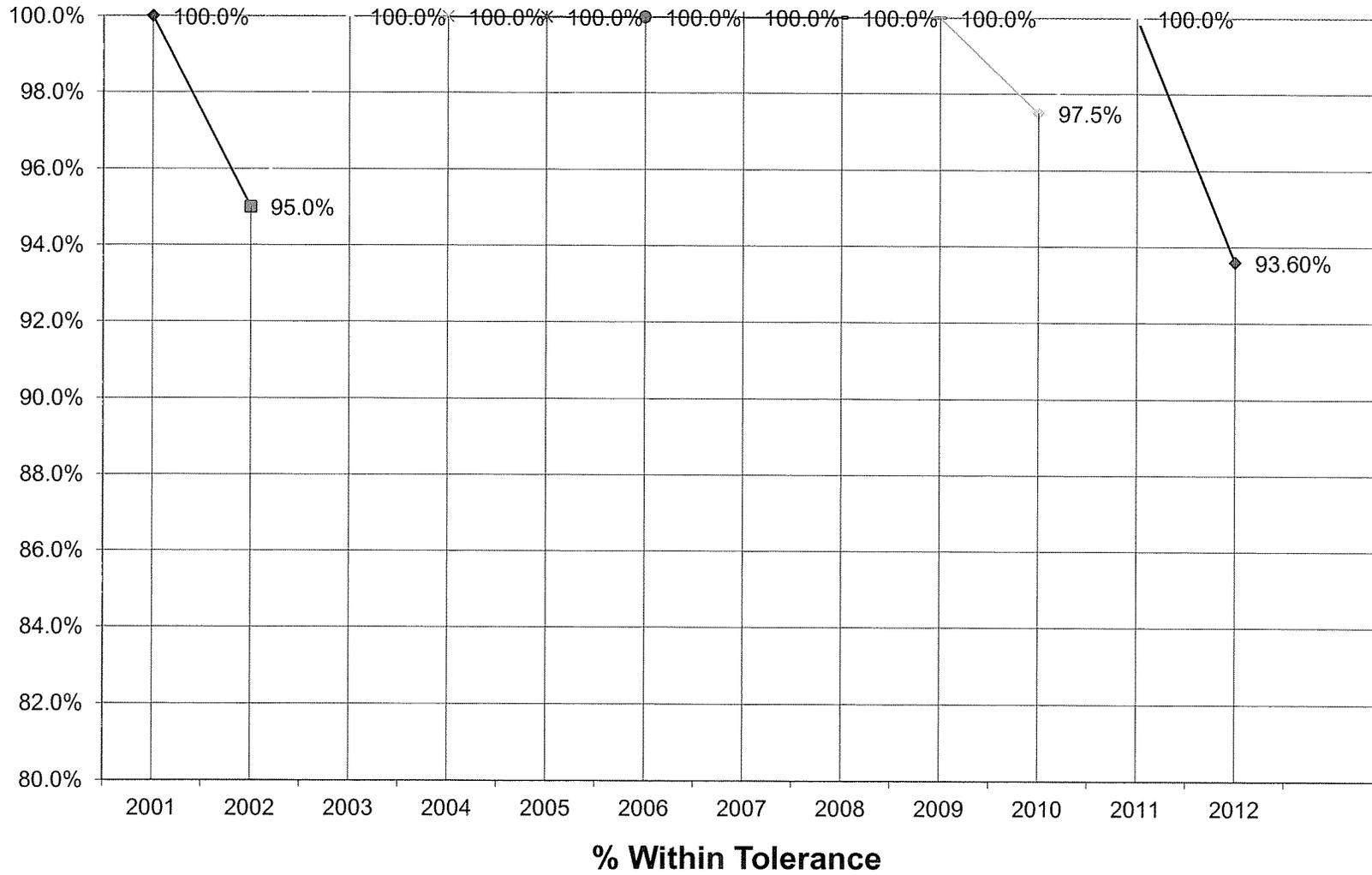
**BRRO01 = Repaired Rockwell meters installed between 2001 & 2010**

**BRSP01 = Repaired Sprague meters installed between 2008 & 2010**

**BNAM01 = New American meters purchased between 2001 & 2010**

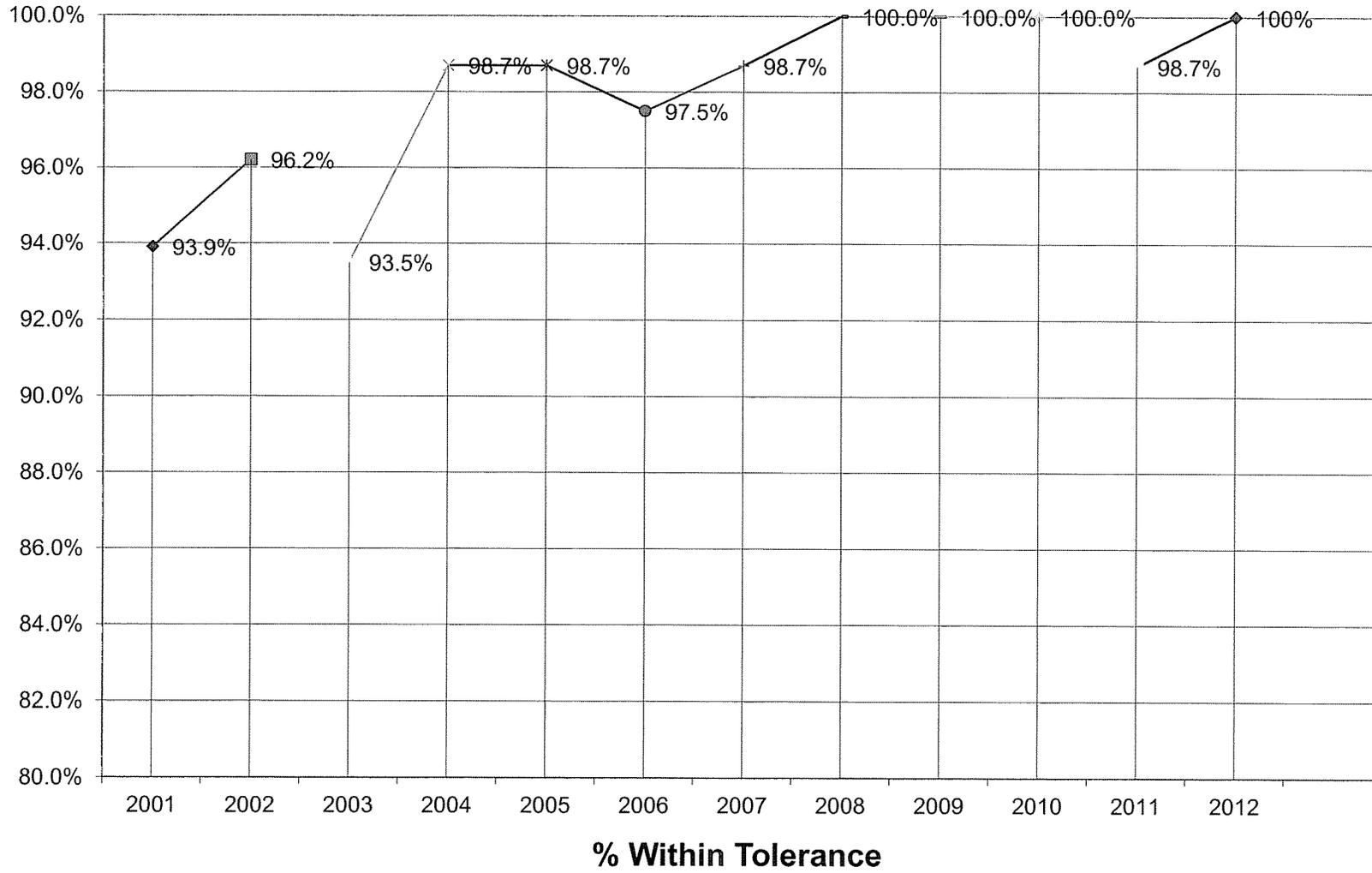
# BNAM01

Columbia Gas  
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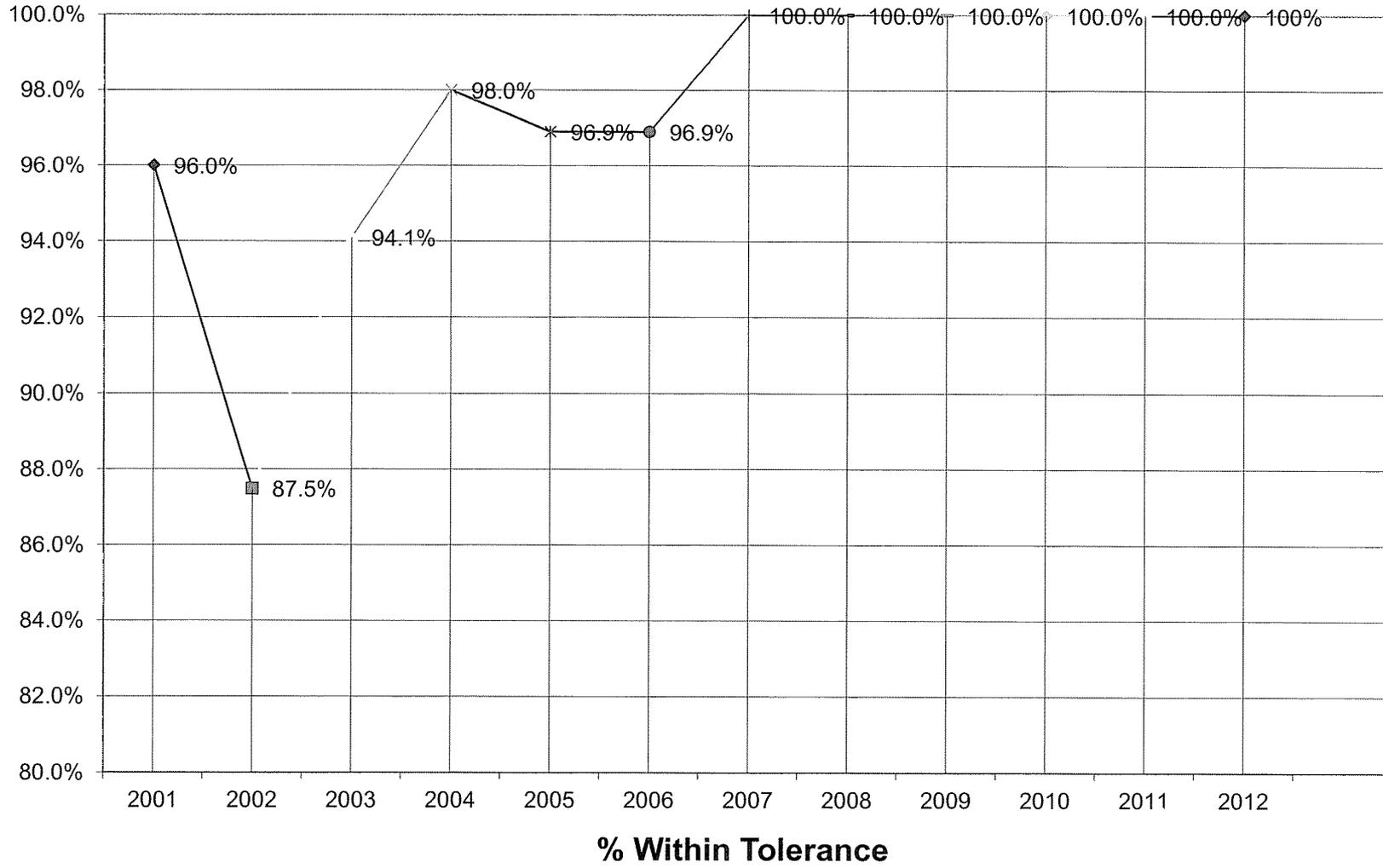
# BRAM01

Columbia Gas  
of Kentucky



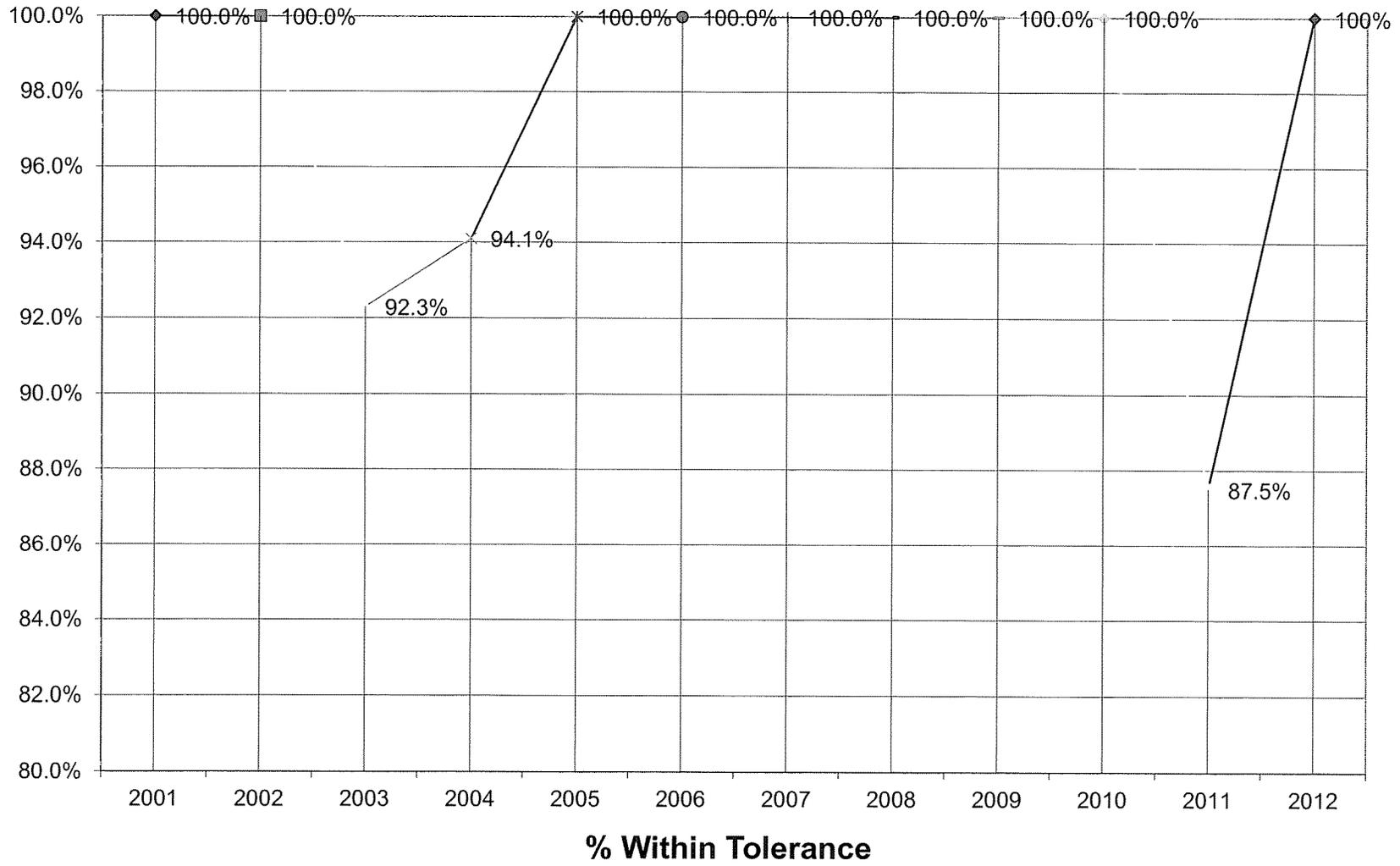
# BRRO01

Columbia Gas  
of Kentucky



# BRSP01

Columbia Gas  
of Kentucky



**EXHIBIT F**

**COST SAVINGS**

**The 2012 sampling program resulted in changing 5374 fewer meters than would have been changed under the 14-year plan Columbia Gas of Kentucky was following prior to meter sampling and changing 10,005 fewer meters than would have been required under a 10-year change-out program.**

**This represents yearly savings of \$1,286,696 compared to a 10-year plan**

**This represents yearly savings of \$730,864 compared to a 14-year plan**

**EXHIBIT G**

**TEST RESULTS OF NEW METERS**

**Columbia Gas of Kentucky purchased 3816 new meters in 2012. The factory test sheets for the new meters purchased in 2012 are on file in the Lexington office.**

**No problems were found in the new 2012 purchases.**