



March 31, 2025

Ms. Linda Bridwell
Executive Director
Kentucky Public Service Commission
211 Sower Boulevard
P. O. Box 615
Frankfort, KY 40602

RECEIVED

MAR 31 2025

PUBLIC SERVICE
COMMISSION

RE: Case No. 2000-429

Dear Ms. Bridwell:

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. Although this was not an electronic case, the Report narrative is submitted electronically in accordance with the Commission's directives in Case No. 2020-00085.

If you have any questions, please contact me at (859) 321-5804 or jmcoop@nisource.com. Thank you.

Sincerely,

/s/ Judy Cooper

Judy M. Cooper
Director, Regulatory Affairs

Enclosures

2024 Meter Sampling Annual Report

Owen Spellecy
Manager Operations Compliance
& Risk Management
Columbia Gas of Kentucky, INC.
March 2025

COLUMBIA GAS OF KENTUCKY INC. 2024 METER SAMPLING ANNUAL REPORT

Columbia Gas of Kentucky completed the twenty-eighth year of their meter sampling program in December 2024.

In 2024, a total of 4,729 meters making up thirty-eight homogenous groups were sampled. Details are in the accompanying evaluation of data and corrective actions information.

In 2024, Columbia Gas of Kentucky service personnel made 30,410 visits to our customers' premises, working orders that involved inspecting house lines and/or appliances. Columbia inspected 53,085 meter set assemblies in conjunction with the Customer Service Line Survey program.

No regulator failures in 2024 resulted in overpressure being delivered to customer's piping.

Columbia continues to promote safety through:

Bills & Bill Inserts

- **Monthly** -- "Welcome To Columbia Gas Of Kentucky" bill insert is sent to new customers and includes information about maintenance of customer-owned buried gas lines, Stop-Leave-Call and Kentucky 811.
- **January 2024:** "For Your Safety & Comfort" bill insert sent to all residential and small commercial customers. Included tips for operating heating equipment and information about carbon monoxide poisoning prevention.
- **February 2024:** Notice of Buried Gas Lines bill insert sent to all customers. (Also sent to new customers throughout the year.)
- **March 2024** – Spring "Your Service" customer newsletter included articles about safe digging, Stop-Leave-Call, flooding safety and appliance safety.
- **April 2024:** "Know What's Below" insert included Call 811 Before You Dig message.
- **June 2024:** Summer "Your Service" customer newsletter included articles about Stop-Leave-Call, digging safety, meter safety, and pipeline encroachments.
- **September 2024:** Fall "Your Service" customer newsletter included articles about annual appliance inspections, preventing home from winter weather, Stop-Leave-Call, and how to spot an imposter.

- **October 2024:** “Think You Smell Natural Gas?” insert included Stop-Leave-Call message.
- **December 2024:** Winter "Your Service" customer newsletter” included articles about Stop-Leave-Call, appliance safety, scam prevention, carbon monoxide and meter safety.
- Left column of monthly customer bill for residential and small commercial customers includes bill messages regarding odor recognition/response, call before you dig and employee identification.
- Billing envelope (back flap) has Call 811 Before You Dig message.
- News release in April regarding National Safe Digging Month
- News release in August regarding National 811 Day
- News release in October for Carbon Monoxide Awareness Month

Website

- Safety information and pages include: [Stop-Leave-Call](#), [811](#), [carbon monoxide](#), [flooding](#), [winter weather](#), disaster preparedness and [appliance safety](#).
- [Kentucky 811 information](#) with a ticket submission link.
- [Contact Us](#) form where customers can email safety-related and other questions to CKY staff
- News releases with safety information in [News Room section](#)
- An [Alert Center](#) with information about outages and service restoration updates

Electronic Communications/Social Media/Printed Material

- Ongoing use of social media channels, including Facebook, Twitter, Nextdoor and LinkedIn, to communicate a variety of safety messages, including 811, odor recognition/response, winter safety, appliance safety, carbon monoxide poisoning prevention, etc.
- Added Instagram to social media channels in 2024
- Email versions of all printed newsletters were sent to customers for whom we have email addresses on 3/28, 6/28 and 9/30.
- Additional safety email topics included:
 - 1/12/24: Prepare for Winter Weather
 - 4/1/24: Safe Digging Month

- 8/11/24: Call 811 Before You Dig

Community Outreach

- 6/17/24 -- Pollinator event at Raven Run Nature Sanctuary
- 7/2, 7/3, 7/8/24 -- Open house events to demonstrate Mobile Command Center to local emergency responders in Lexington area.
- 8/8/24 -- Thursday Night Live sponsorship in Lexington to promote 811
- 8/8/24 -- Recorded *Council Comments* TV program with Lexington Councilmember Whitney Baxter
- 11/3/24 -- VA5K event at Lexington VA Medical Center featuring 811 messaging
- 10/8/24 -- Safety information distributed at Lexington Senior Center “Now You Know” event
- 10/8/24 -- Booth at Legacy Concert series in Winchester, KY
- 10/12/24 -- Booth at Walk to End Alzheimer’s in Ashland, KY
- Customer letters and door hangers associated with large pipeline replacement projects include information about odor recognition and response.
- English/Spanish pipeline safety brochure mailed to affected public, etc. As part of CKY’s RP1162 Public Awareness Program.
- Natural gas safety education materials provided to teachers upon request through the National Energy Foundation.
- Safety newsletter created for and distributed to public officials across CKY’s service area.
- Safety handout created for Operations employees to distribute to excavators, etc.
- Digger Dog natural gas safety coloring books in English and Spanish provided to Bluegrass Farms Charities for holiday event.
- Digger Dog natural gas safety activity books in English and Spanish provided to Lexington Humane Society for inclusion in adoption packets.
- Digger Dog natural gas safety activity books in English and Spanish provided to Lexington Public Library for grand opening of the Marksbury Family Branch.

Excavator/Emergency Responder Training/Outreach

- January – March – CKY sponsored Paradigm pipeline safety training meetings for excavators, emergency responders, and public officials in its service area.
- 10/18/24 -- Letter from Field Operations Leaders to public officials regarding 811, sewer line safety and railroad derailment procedures.
- 02/13-15/24 – Conducted natural gas fire training for Scott County Fire Department
- October – Participated in multi-jurisdictional full scall Emergency Exercise in Boyd County
- Attended and Participated at Local Emergency Preparedness Committees emergency management meetings for Boyd, Clark, Fayette, Franklin, Pike, Scott and Greenup counties. Frequency of attendance ranges from monthly to quarterly.

Evaluation of Data

- A total of 4518, domestic meters making up thirty-five homogeneous Control Groups were sampled in 2024.
- Of the 4,518 domestic meters sampled, 212 tested outside of the required accuracy of +/- 2% and were classified as failed meter.
- 4.7% of the domestic meters pulled for meter sampling failed.
- Thirty-two of the thirty-two homogenous Control Groups passed the requirements of the American National Standards Institute / American Society for Quality Control Z 1.4.
- A total of 211 Large Volume meters making up three homogenous control groups were sampled in 2024.
- Of the 211 Large Volume meters sampled, 3 tested outside the required accuracy of +/- 2% and were classified as failed meter.
- 1.4% of Columbia Gas of Kentucky's Large Volume meters failed.
- All 3 Large Volume homogenous Control Groups passed the requirements of American National Standards Institute / American Society for Quality Control Z 1.4.

Failed Family

- Columbia Gas was able to identify specific shipments of meters in the American families NAM11, RAM03, RAM04, RAM05, and Rockwell family NRO03. Columbia has created sub-families consisting of the remaining 854 meters for 2024 and will remove these poor performing meters by the end of 2025.

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 in-testing and retiring all meters that are not temperature compensated. This eliminates poor performing meters from being reinstalled.

Regulator Failures

- Columbia Gas of Kentucky had twenty-two failures in 2024. Due to full internal relief and automatic shut off devices of the regulators, none resulted in an overpressure situation for the customer
- One regulator locked out due to a defective fitting
- Eleven regulators had gas leaking from the vent
- Two regulators would not adjust or lock up correctly
- Six regulators locked up incorrectly
- Two regulators failed because they were defective or due to a natural force

Should you have any questions, contact Owen Spellecy at (859) 300-2555

Owen Spellecy

Manager Operations Compliance & Risk Management
Columbia Gas of Kentucky

Appendix

Exhibit A - Identification of Control Groups

Exhibit B – Domestic Meter Test Results

Exhibit C – Large Volume Meter Results

Exhibit D – Percentage of Domestic Meter Accuracy by Family

Exhibit E - Percentage of Large Volume Meter Accuracy by Family

Exhibit F – Cost Savings

Exhibit G – Test Results of New Meters

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 |
| IT | = Itron |
| SC | = Schlumberger |

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

2024 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 over several years. This is a combined listing of all domestic meter groups.

2024 COLUMBIA GAS OF KENTUCKY METER SAMPLING RESULTS

Samples taken between 2024-01-01 and 2024-12-31

"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 | 2023 FAMILY STATUS | RATIO FAILED | NUMBER FAILED FAST | NUMBER FAILED SLOW |
|--------------|-----------------------|-----------------------------|---------------|---------------------|-------------------------|--------------------|--------------|--------------------|--------------------|
| | (a) | (b) | (c) | (d) | (e) | (f) | (d/c=g) | (h) | (i) |
| NAM02 | 1198 | 125 | 125 | 1 | 14 | PASSED | 0.8% | 1 | 0 |
| NAM03 | 957 | 80 | 83 | 0 | 10 | PASSED | 0.0% | 0 | 0 |
| NAM05 | 871 | 80 | 88 | 0 | 10 | PASSED | 0.0% | 0 | 0 |
| NAM06 | 2757 | 125 | 125 | 2 | 14 | PASSED | 1.6% | 1 | 1 |
| NAM06A | 2751 | 125 | 125 | 7 | 14 | PASSED | 5.6% | 6 | 1 |
| NAM07 | 316 | 50 | 50 | 4 | 7 | PASSED | 8.0% | 4 | 0 |
| NAM09 | 1751 | 125 | 125 | 4 | 14 | PASSED | 3.2% | 4 | 0 |
| NAM10 | 6285 | 200 | 205 | 19 | 21 | PASSED | 9.3% | 17 | 2 |
| NAM11 | 6495 | 200 | 201 | 23 | 21 | FAILED | 11.4% | 19 | 4 |
| NAM12 | 5386 | 200 | 200 | 4 | 21 | PASSED | 2.0% | 3 | 1 |
| NAM13 | 7071 | 200 | 247 | 7 | 21 | PASSED | 2.8% | 6 | 1 |
| NAM14 | 8367 | 200 | 230 | 3 | 21 | PASSED | 1.3% | 3 | 0 |
| NAM15 | 8110 | 200 | 205 | 1 | 21 | PASSED | 0.5% | 0 | 1 |
| KYNIT02 | 8759 | 200 | 204 | 1 | 21 | PASSED | 0.5% | 1 | 0 |
| KYNIT03 | 3604 | 200 | 202 | 0 | 21 | PASSED | 0.0% | 0 | 0 |

| | | | | | | | | | |
|-------|------|-----|-----|----|----|--------|------|---|---|
| NLA02 | 2357 | 125 | 125 | 0 | 14 | PASSED | 0.0% | 0 | 0 |
| NRO01 | 911 | 80 | 80 | 5 | 10 | PASSED | 6.3% | 0 | 5 |
| NRO02 | 3044 | 125 | 134 | 12 | 14 | PASSED | 9.0% | 7 | 5 |
| NSC01 | 2020 | 13 | 13 | 0 | 2 | PASSED | 0.0% | 0 | 0 |

Samples taken between 2024-01-01 and 2024-12-31

"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>2023 FAMILY STATUS</u> | <u>RATIO FAILED</u> | <u>NUMBER FAILED FAST</u> | <u>NUMBER FAILED SLOW</u> |
|-------------------------|--------------------------------------|--|--------------------------|------------------------------------|--|-----------------------------------|-------------------------|-----------------------------------|-----------------------------------|
| | (a) | (b) | (c) | (d) | (e) | (f) | (d/c=g) | (h) | (i) |
| RAM03 | 132 | 20 | 20 | 7 | 5 | FAILED | 35.0% | 4 | 3 |
| RAM04 | 3831 | 200 | 201 | 15 | 21 | PASSED | 7.5% | 9 | 6 |
| RAM05 | 6199 | 200 | 201 | 29 | 21 | FAILED | 14.4% | 5 | 24 |
| RAM06 | 7314 | 200 | 202 | 9 | 21 | PASSED | 4.5% | 4 | 5 |
| RAM07 | 6011 | 200 | 200 | 11 | 21 | PASSED | 5.5% | 3 | 8 |
| RAM08 | 5668 | 200 | 207 | 2 | 21 | PASSED | 1.0% | 1 | 1 |
| RLA03 | 1078 | 80 | 82 | 2 | 10 | PASSED | 2.4% | 2 | 0 |
| RRO01 | 163 | 32 | 32 | 4 | 4 | PASSED | 12.5% | 2 | 2 |
| RRO02 | 707 | 80 | 82 | 5 | 10 | PASSED | 6.1% | 3 | 2 |
| RRO03 | 2532 | 125 | 125 | 13 | 14 | PASSED | 10.4% | 9 | 4 |
| RRO04 | 3702 | 200 | 203 | 18 | 21 | PASSED | 8.9% | 6 | 12 |
| RSP01 | 1994 | 125 | 125 | 3 | 14 | PASSED | 2.4% | 2 | 1 |
| RIT01 | 360 | 50 | 50 | 0 | 7 | PASSED | 0.0% | 0 | 0 |
| RSC01 | 140 | 20 | 21 | 1 | 3 | PASSED | 4.8% | 1 | 0 |
| TOTAL | 112701 | 4385 | 4518 | 212 | | | 4.7% | 123 | 89 |

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

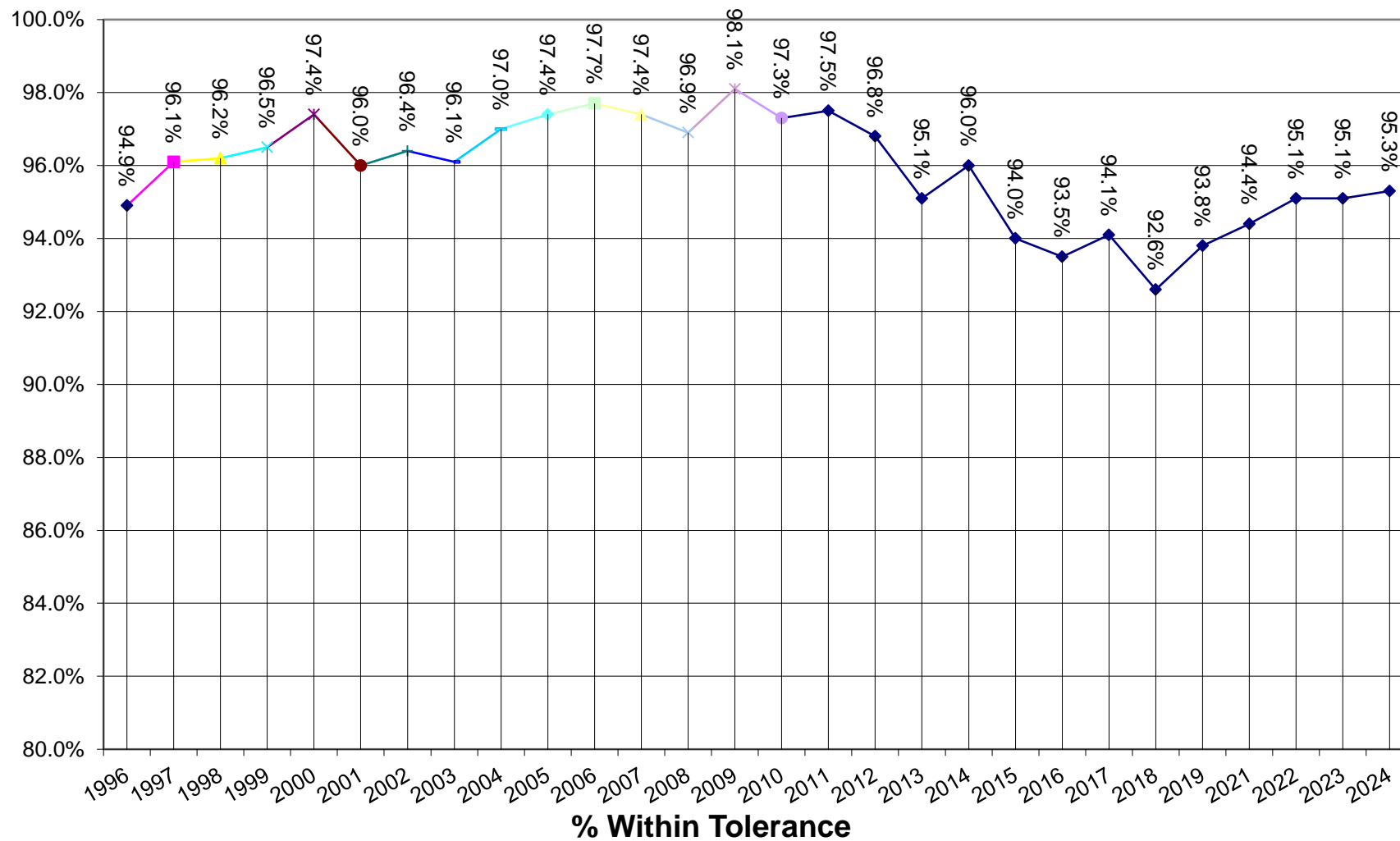


EXHIBIT C

2024 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 over several years. This is a combined listing of all large volume groups.

2024 COLUMBIA GAS OF KENTUCKY METER SAMPLING RESULTS

Samples taken between 2024-01-01 and 2024-12-31

"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 | 2023 FAMILY STATUS | RATIO FAILED | NUMBER FAILED FAST | NUMBER FAILED SLOW |
|-----------------|-----------------------------|-----------------------------------|------------------|---------------------------|-------------------------------|--------------------------|-----------------|--------------------------|--------------------------|
| | (a) | (b) | (c) | (d) | (e) | (f) | (d/c=g) | (h) | (l) |
| BNAM01 | 862 | 80 | 83 | 2 | 10 | PASSED | 2.4% | 1 | 1 |
| BRAM01 | 1265 | 125 | 125 | 1 | 14 | PASSED | 0.8% | 0 | 1 |
| BRSP01 | 8 | 2 | 3 | 0 | 1 | PASSED | 0.0% | 0 | 0 |
| TOTAL | 2135 | 207 | 211 | 3 | | | 1.4% | 1 | 2 |

EXHIBIT D

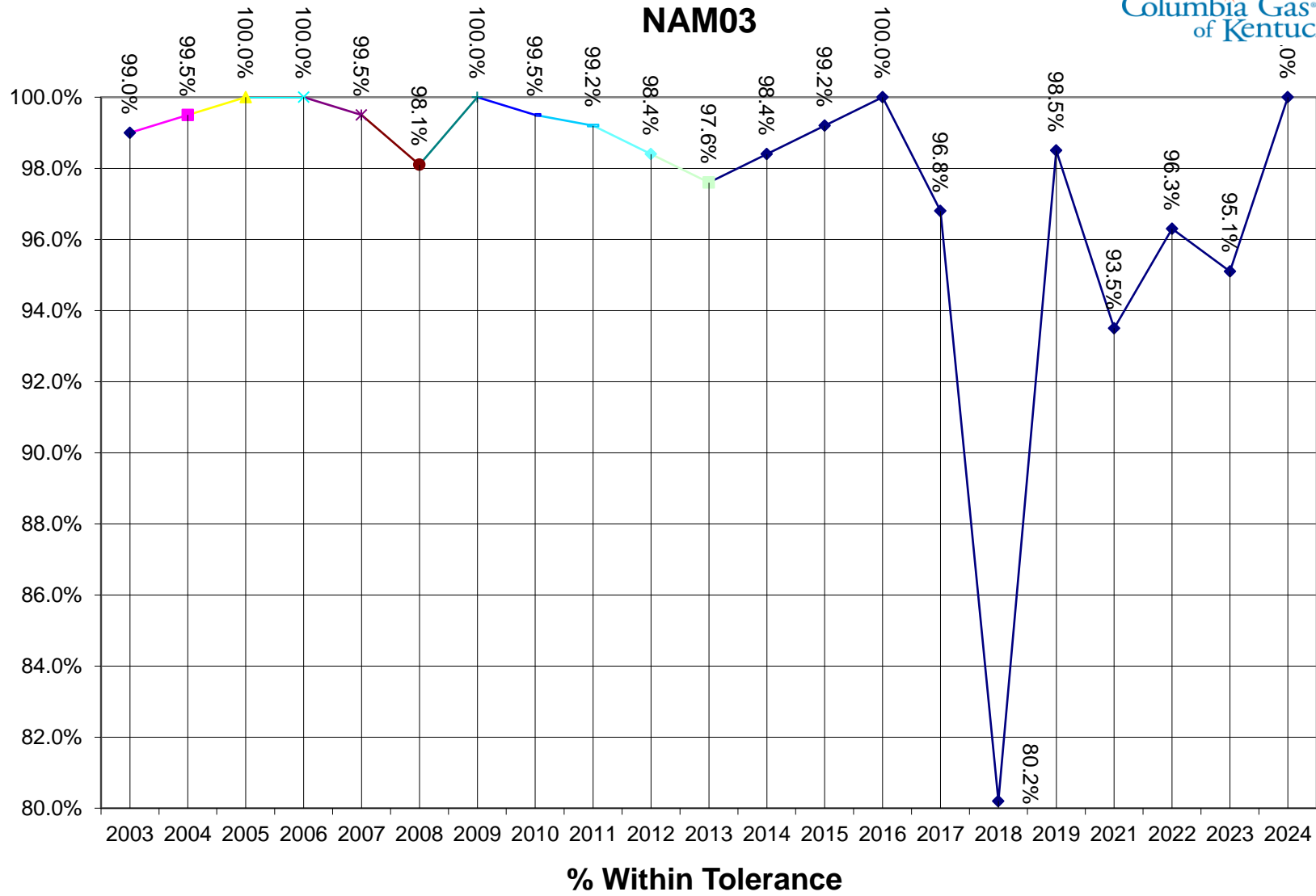
PERCENTAGE OF DOMESTIC METER ACCURACY BY FAMILY

Exhibit D - represents the percentage of meters sampled in 2024 that were within the +/- 2% rate, identified by homogenous group. We also show previous results of meter families sampled in the past ten years.

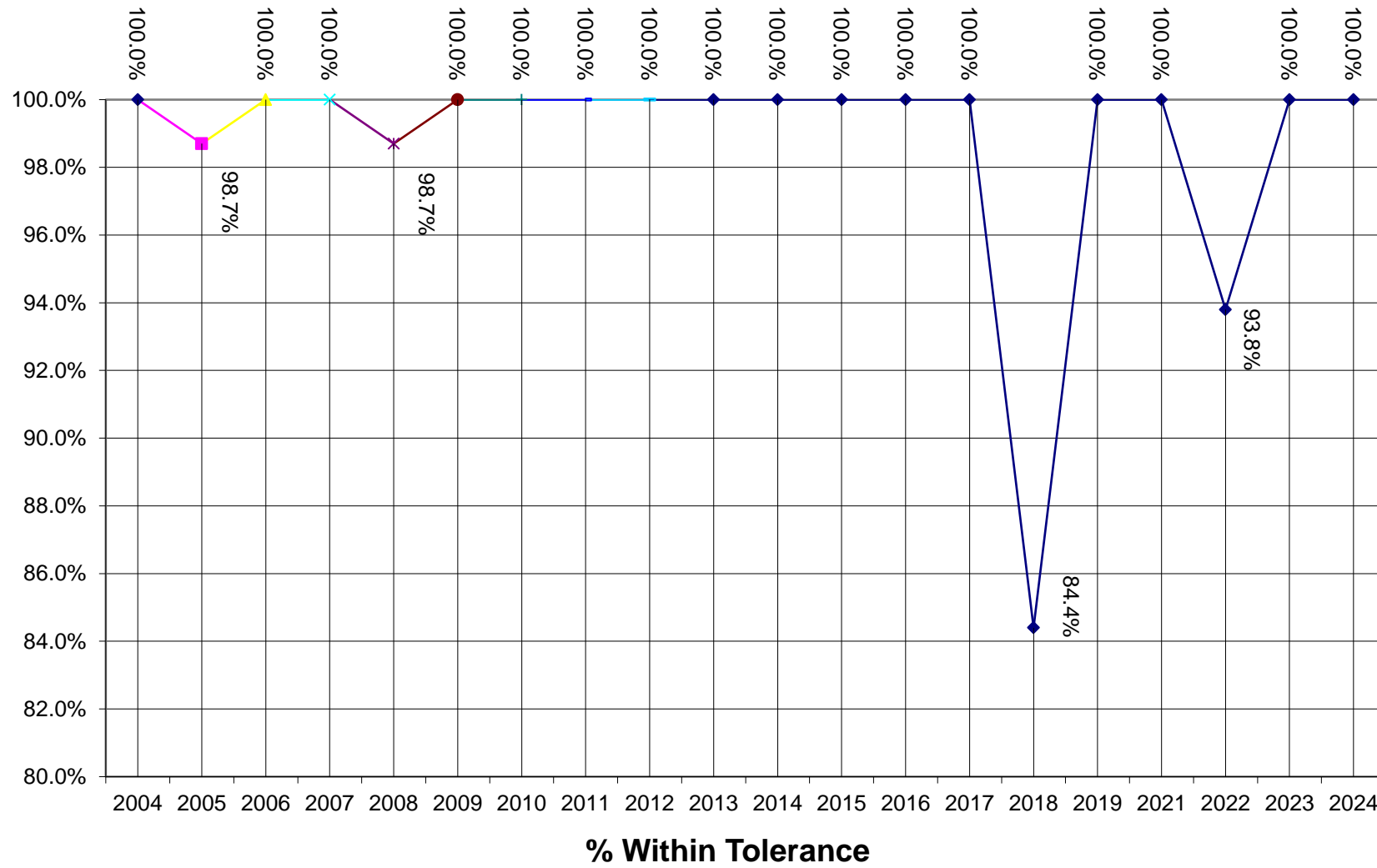
| | |
|--------|--|
| NAM02 | = New American meters purchased in 1991, 1992 & 1993 |
| NAM03 | = New American meters purchased in 1994 |
| NAM05 | = New American meters purchased in 1995 & 1996 |
| NAM06 | = New American meters purchased in 1999 & 2000 |
| NAM06A | = New American meters purchased in 2001 & 2002 |
| NAM07 | = New American meters purchased in 2003 |
| NAM09 | = New American meters purchased in 2006 |
| NAM12 | = New American meters purchased in 2011 & 2012 |
| NAM13 | = New American meters purchased in 2013 & 2014 |
| NAM14 | = New American meters purchased in 2015 & 2016 |
| NAM15 | = New American meters purchased in 2018, 2020, & 2022 |
| NIT02 | = New Itron meters purchased in 2015, 2016, 2018 & 2020 |
| NIT03 | = New Itron meters purchased in 2022 |
| NLA02 | = New Lancaster meters purchased in 1989, 1990, & 1992 |
| NRO01 | = New Rockwell meters purchased in 1995, & 1996 |
| NRO02 | = New Rockwell meters purchased in 1997, 1998, 1999, 2016 & 2018 |
| NSC01 | = New Schlumberger meters purchased in 2020 |

| | |
|--------------|--|
| NSP02 | = New Sprague meters purchased in 2018, 2020 & 2022 |
| RAM04 | = Repaired American meters installed between 1992 & 1999 |
| RAM06 | = Repaired American meters installed between 2008 & 2011 |
| RAM07 | = Repaired American meters installed in 2013, 2014, & 2015 |
| RAM08 | = Repaired American meters installed 2016, 2018, 2020, & 2022 |
| RIT01 | = Repaired American meters installed in 2018, 2020, & 2022 |
| RLA03 | = Repaired Lancaster meters installed between 1993 & 2014 |
| RRO01 | = Repaired Rockwell meters installed in 1989 |
| RRO02 | = Repaired Rockwell meters installed in 1991, 1992, & 1993 |
| RRO03 | = Repaired Rockwell meters installed between 1994 & 2003 |
| RRO04 | = Repaired Rockwell meters installed between 2004 & 2018 |
| RSP01 | = Repaired Sprague meters installed between 1989 & 2022 |
| RSC01 | = Repaired Schlumberger meters installed in 2022 |

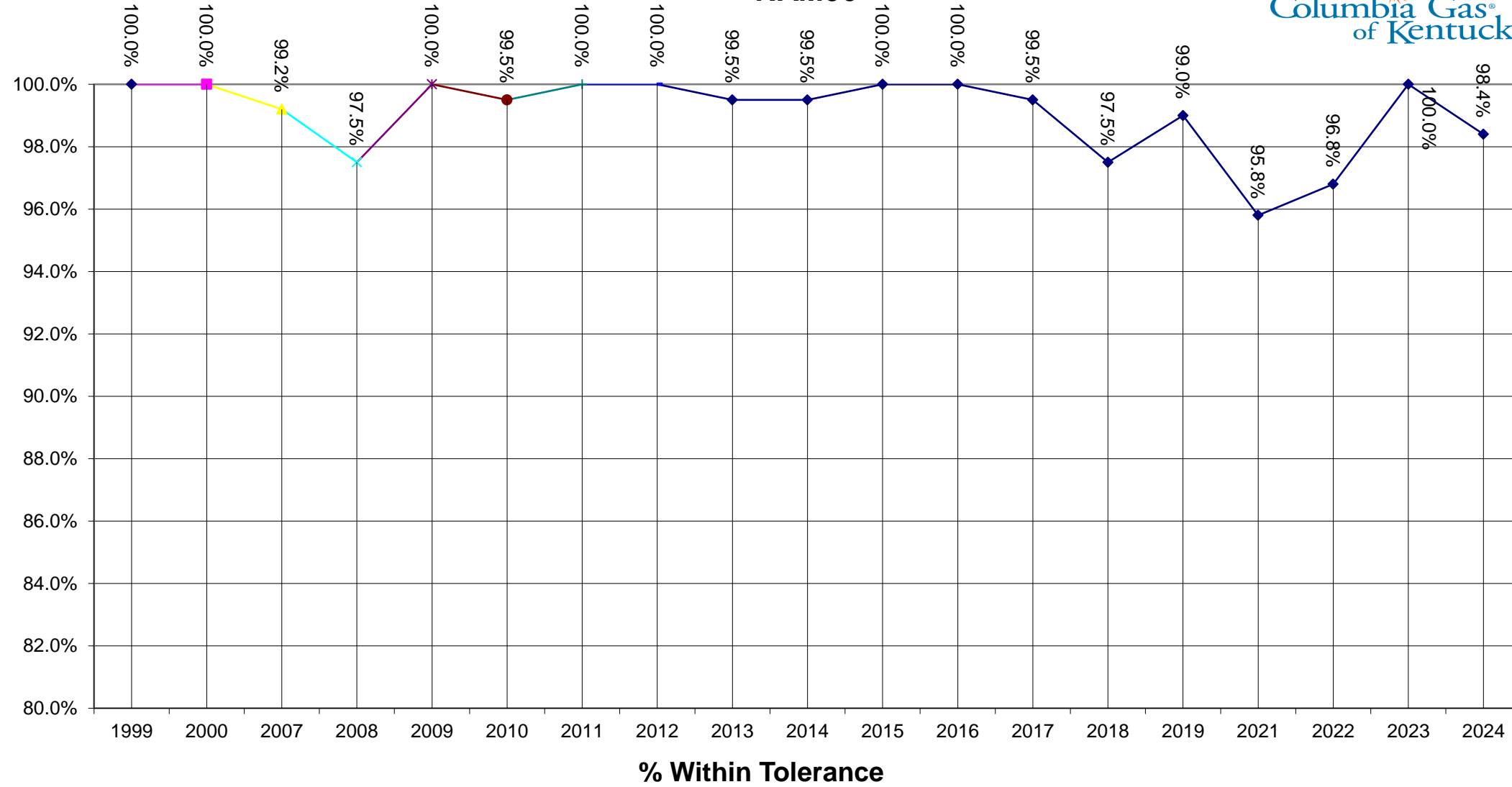
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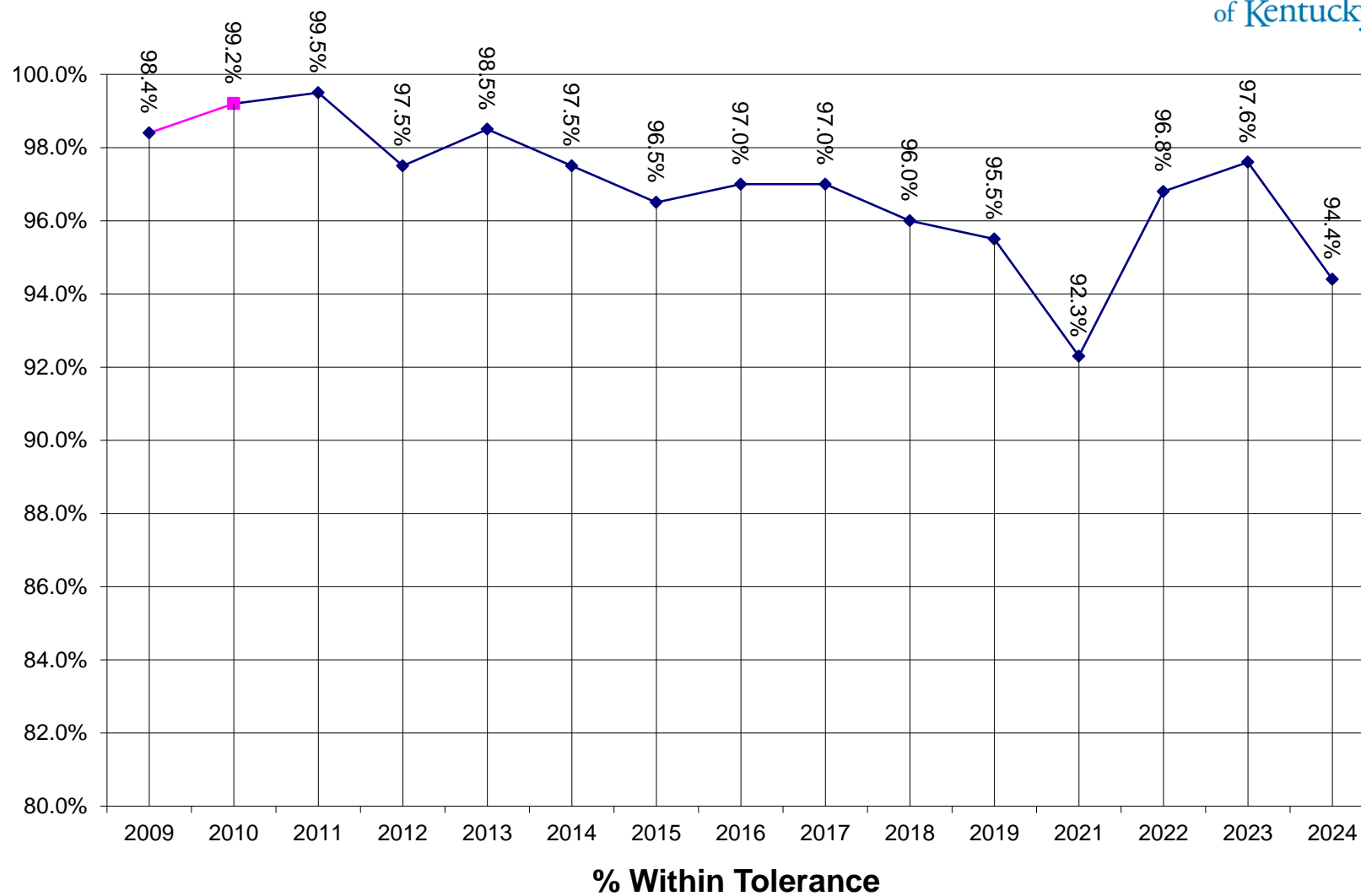
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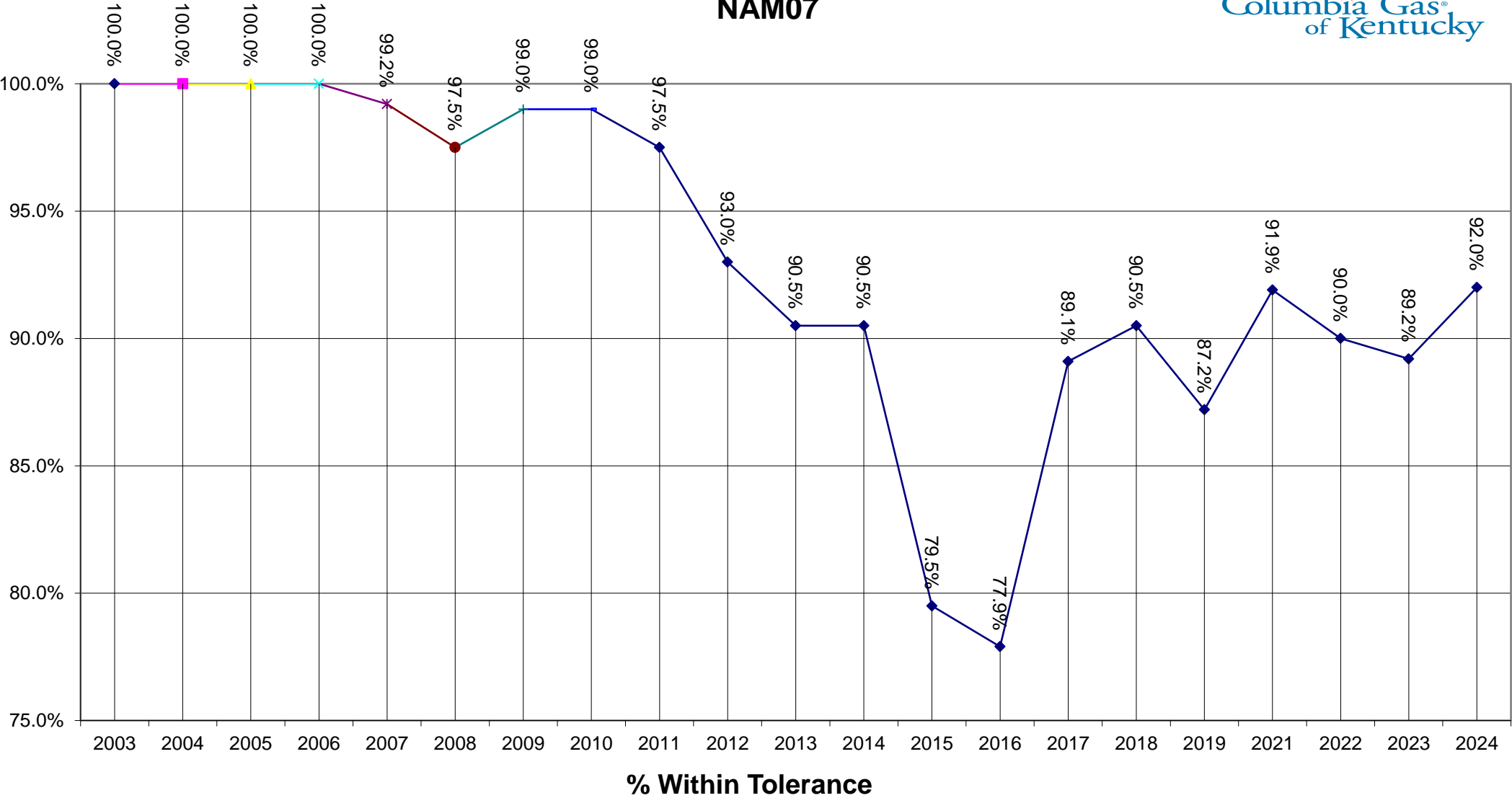
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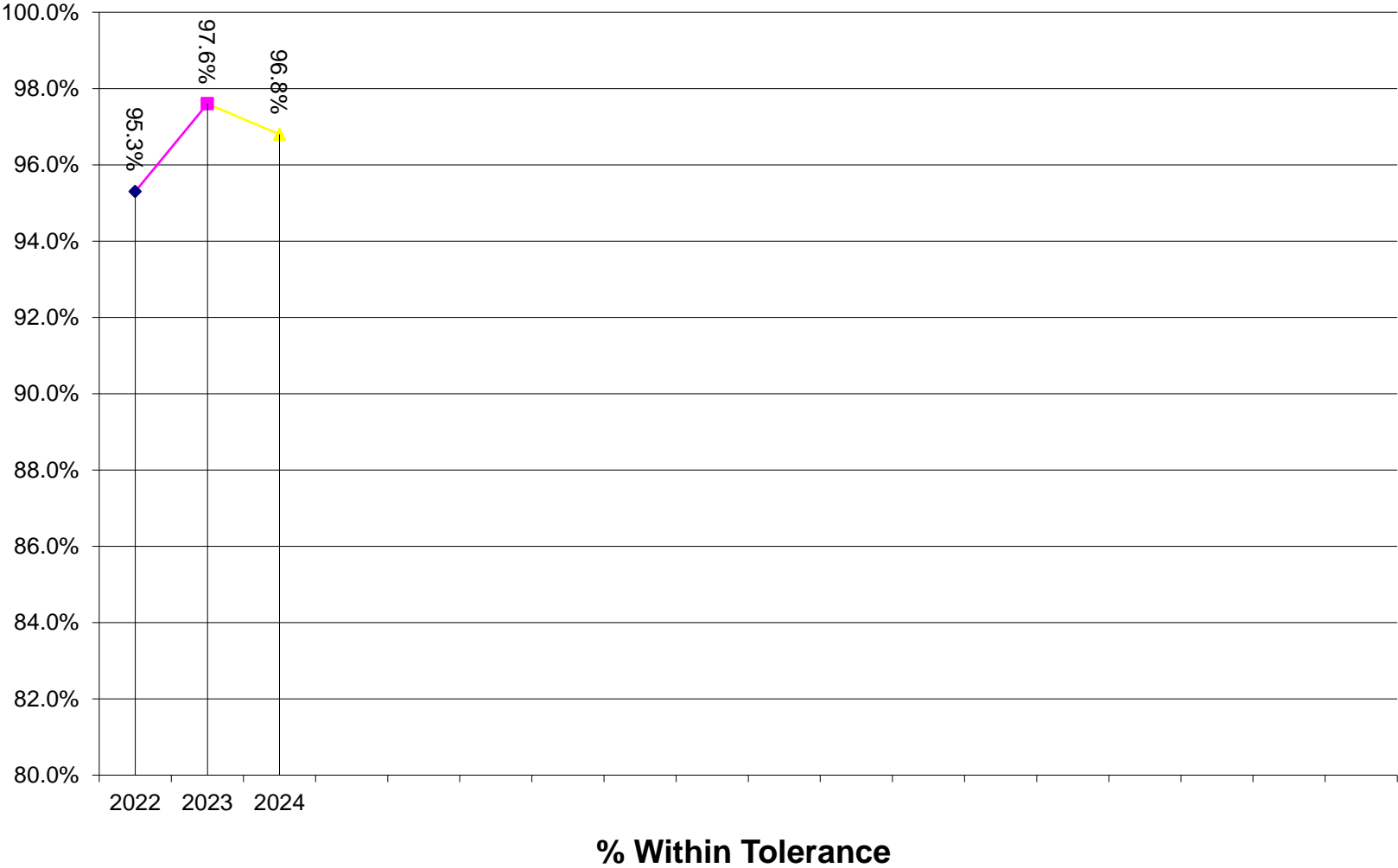
NAM06A



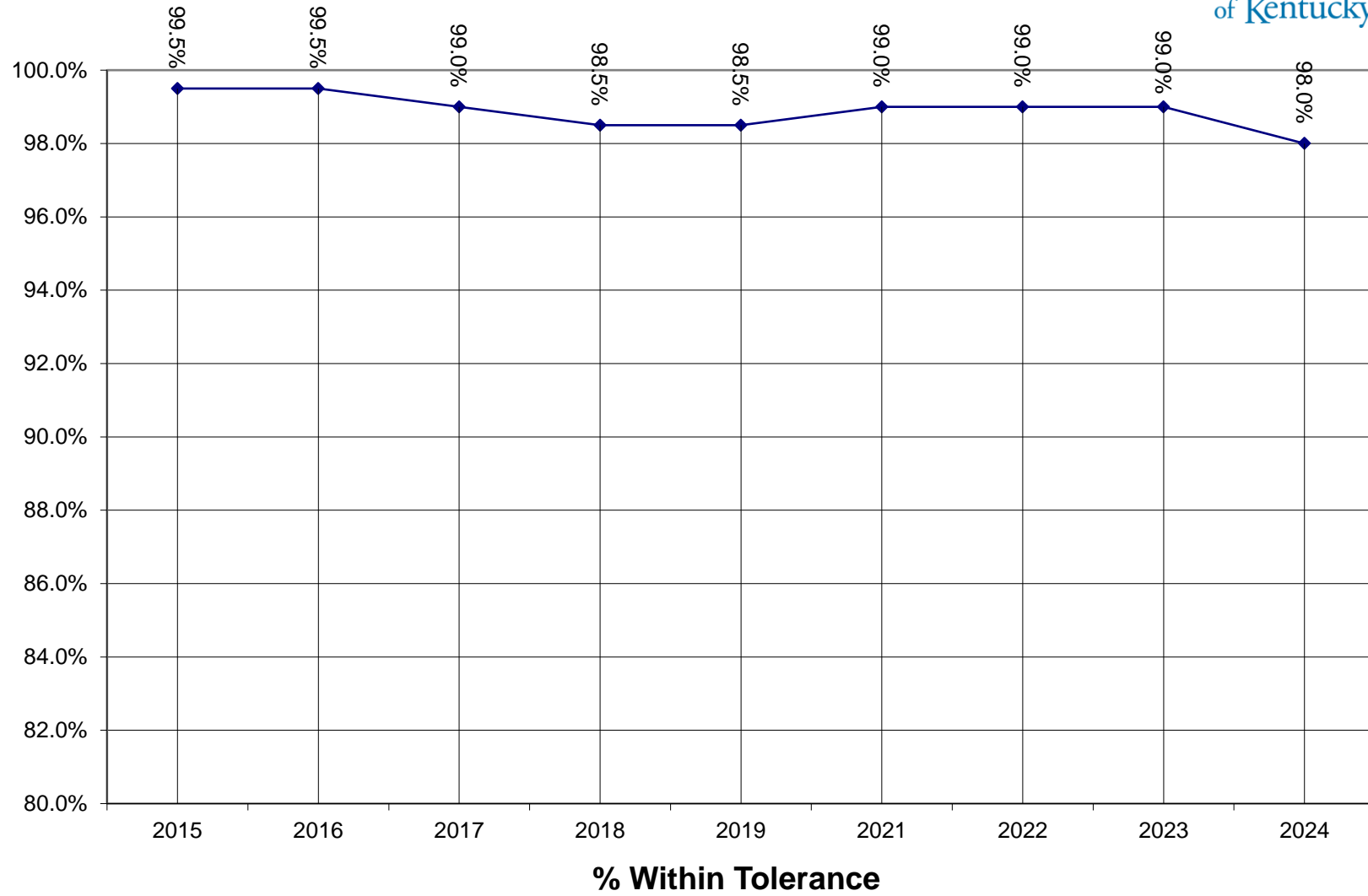
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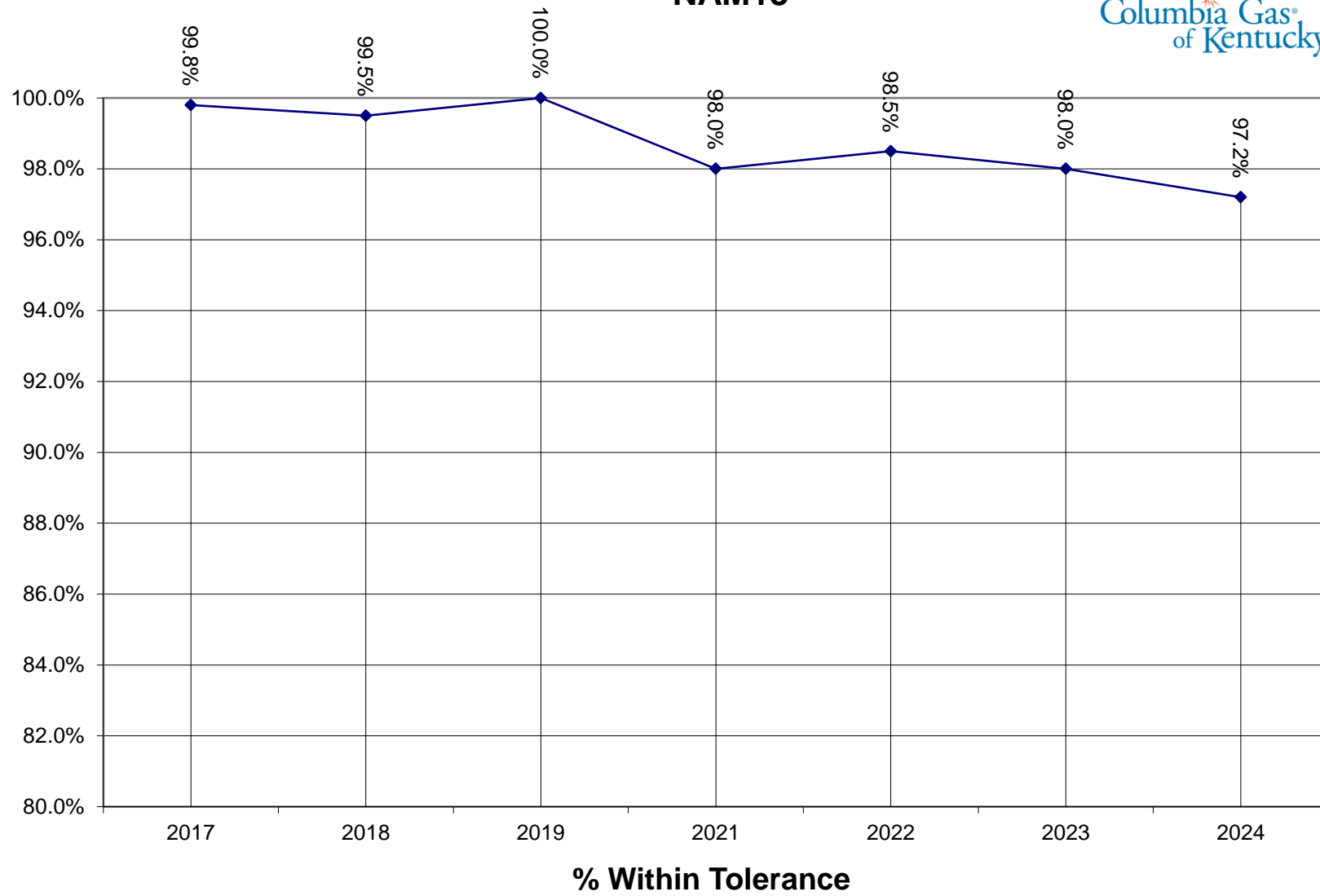
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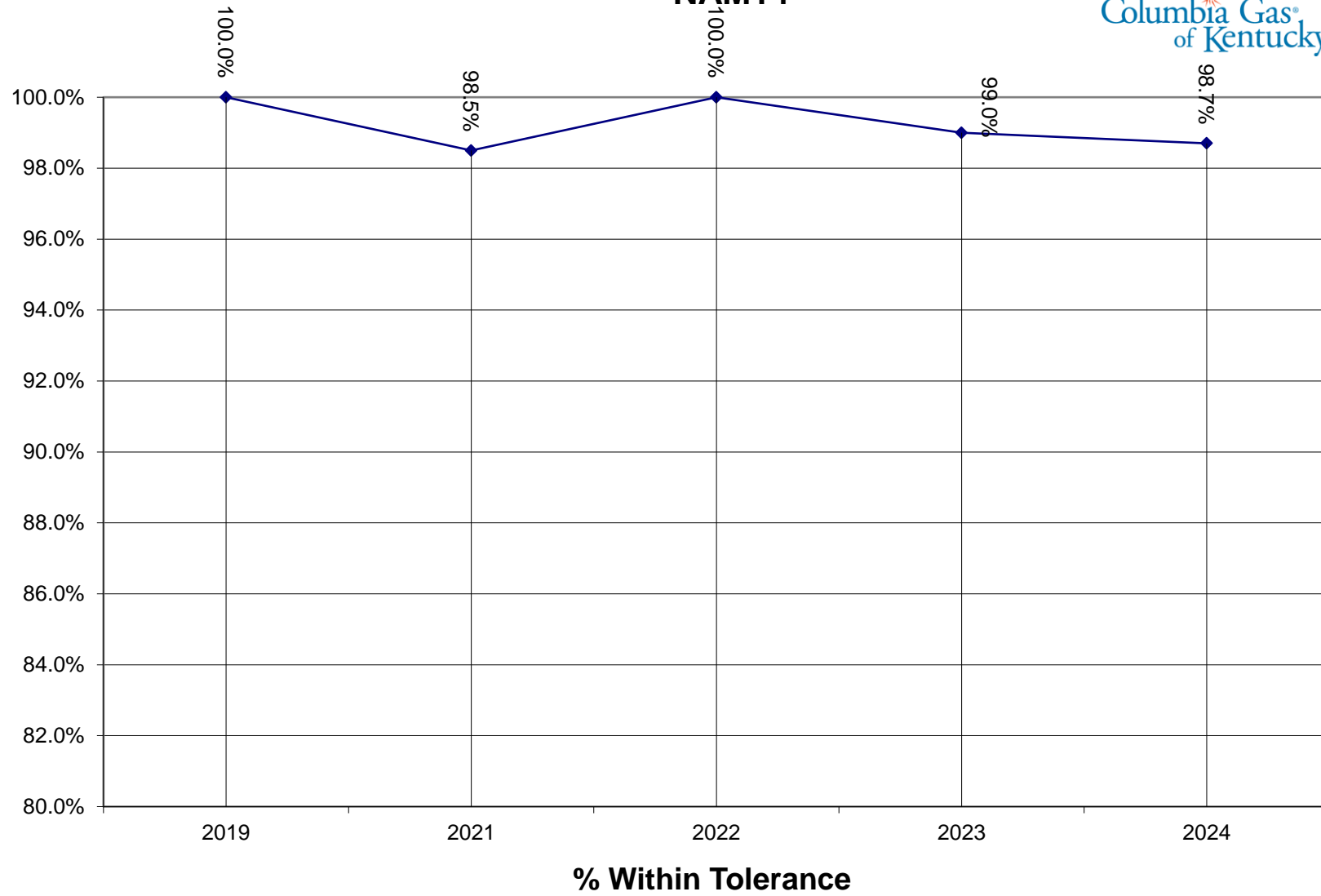
NAM12



NAM13

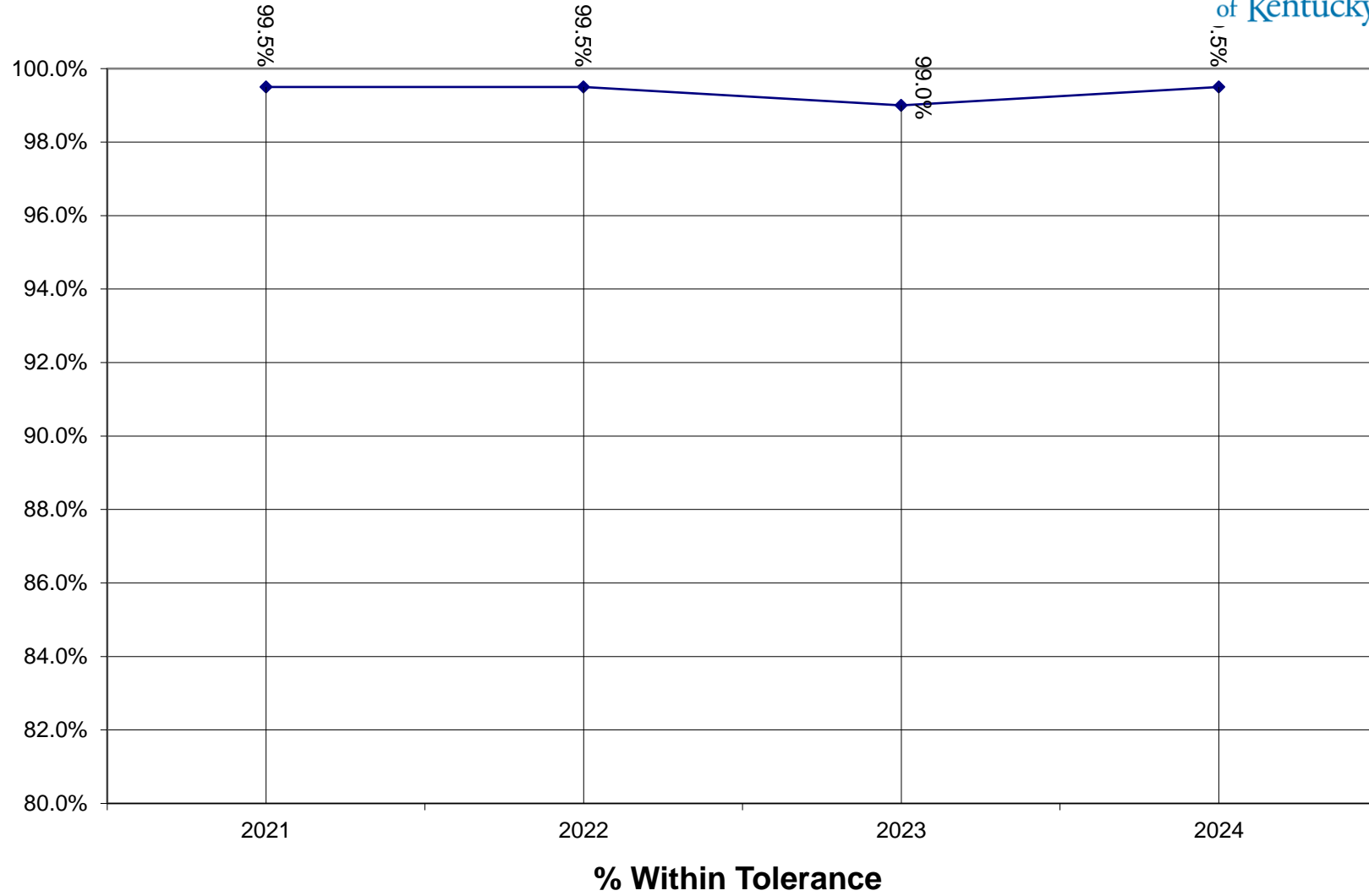


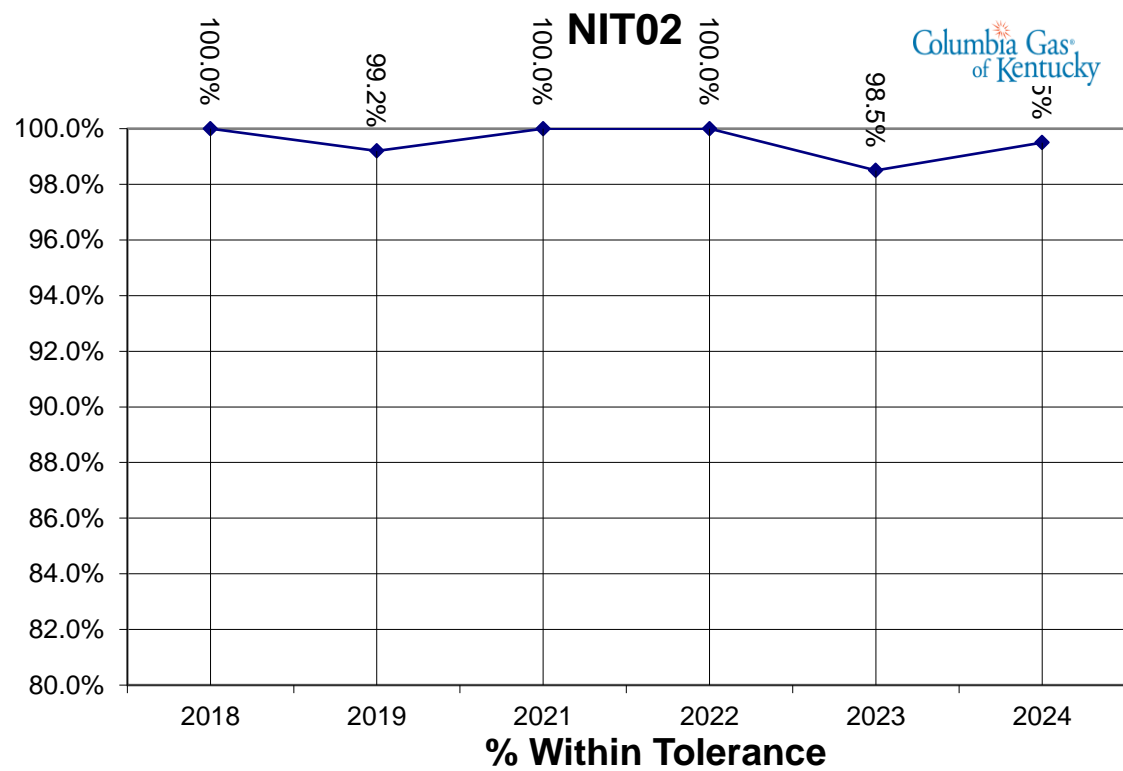
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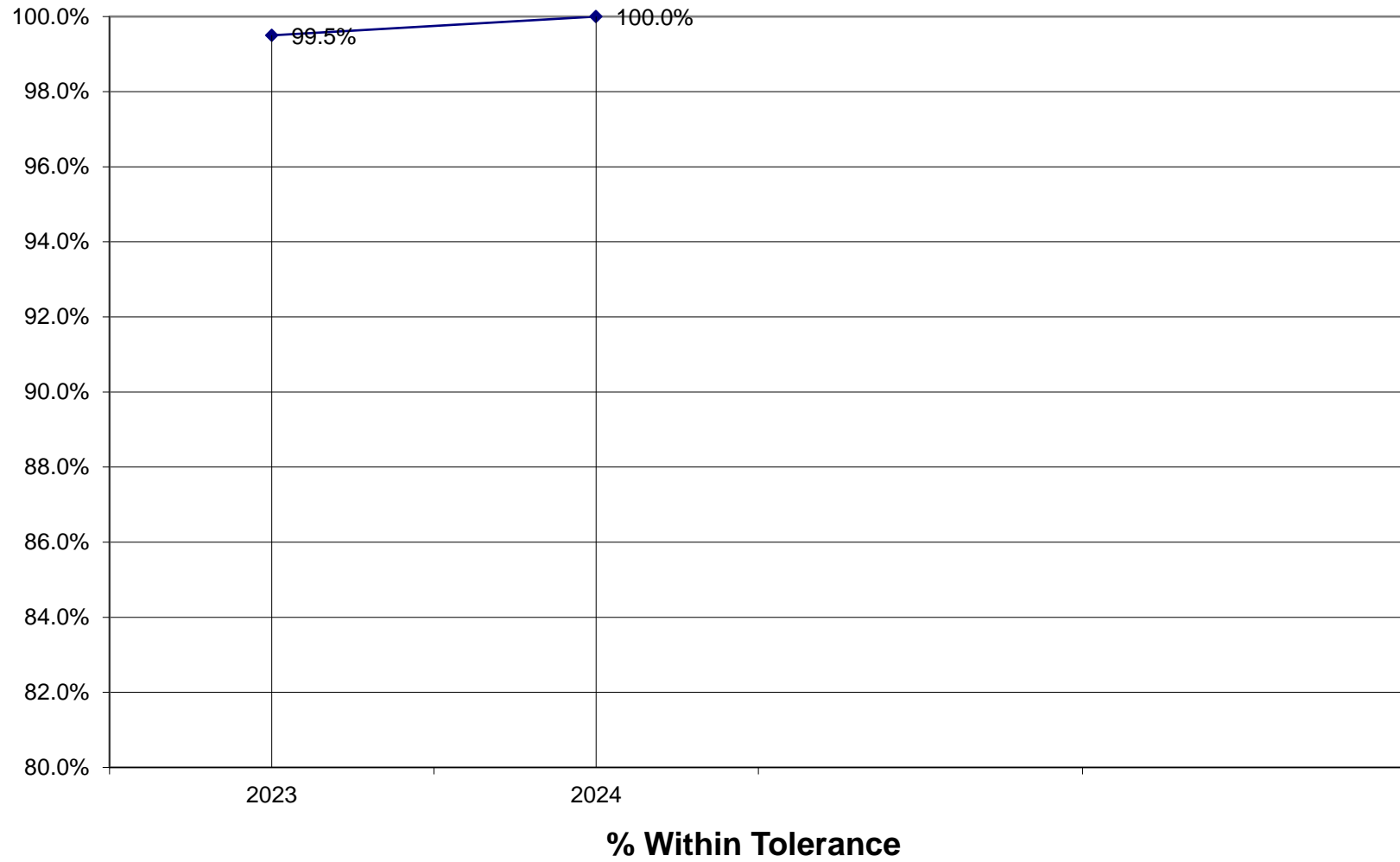
NAM15

Columbia Gas[®]
of Kentucky

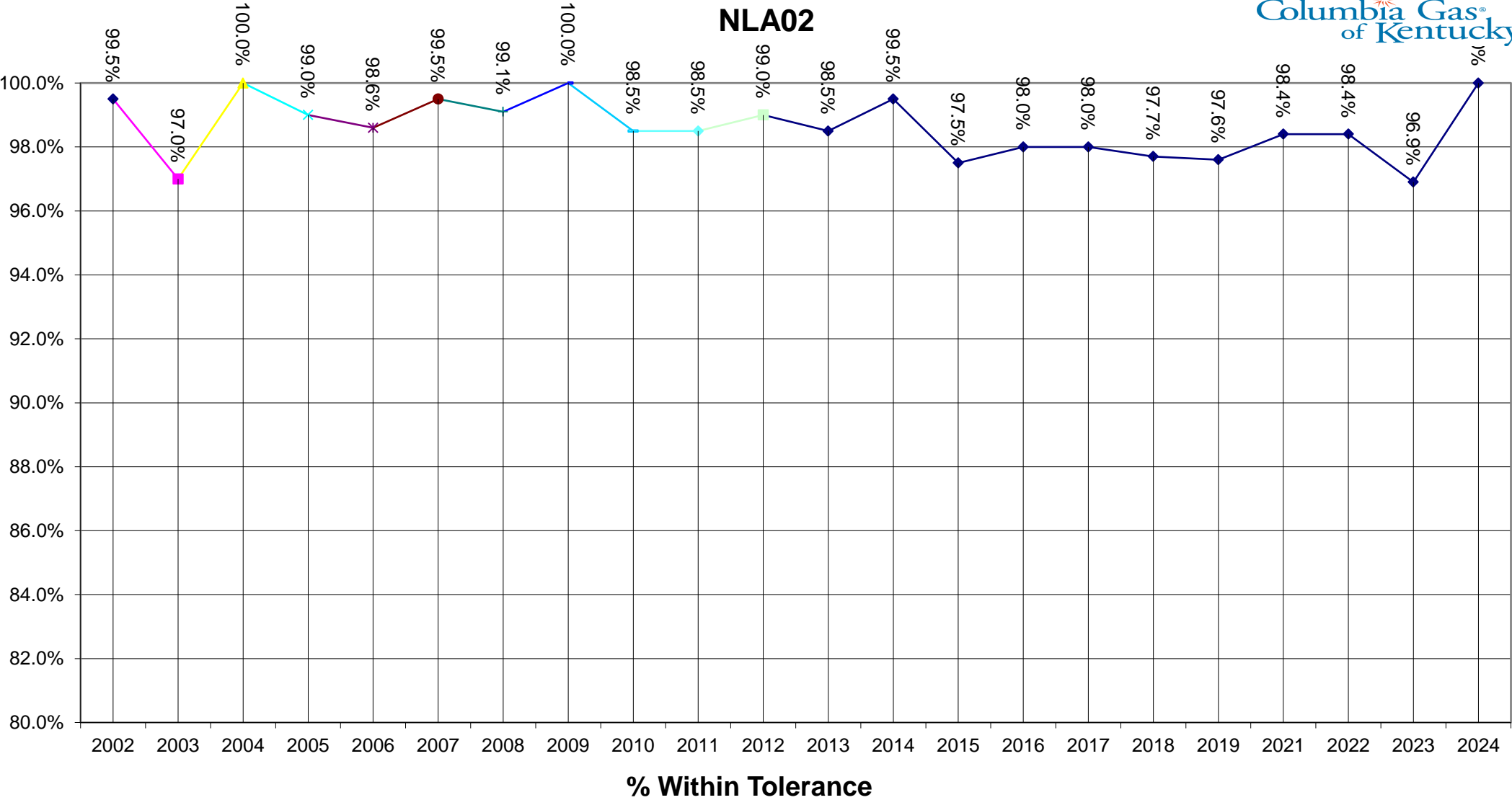




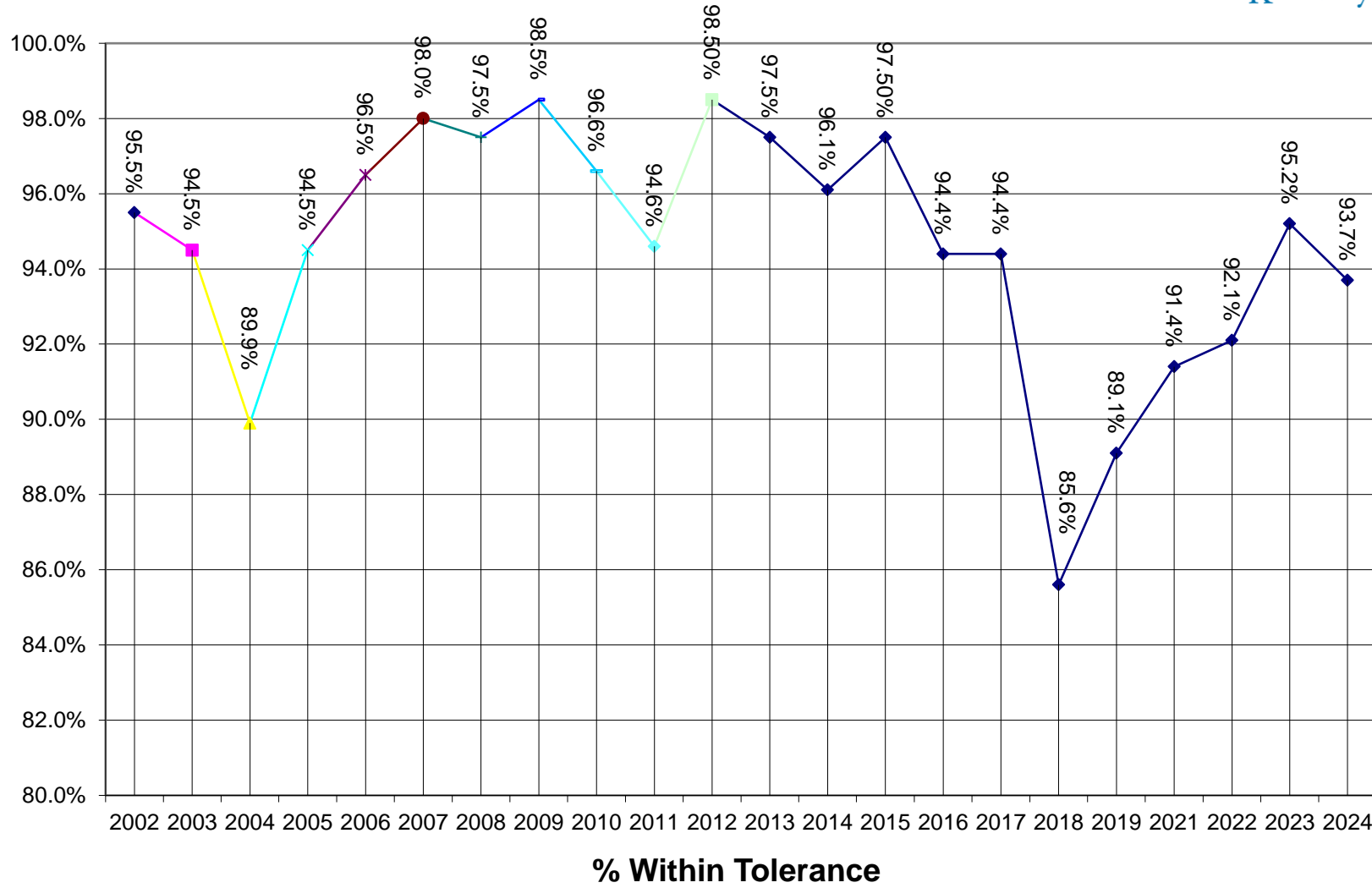
NIT03



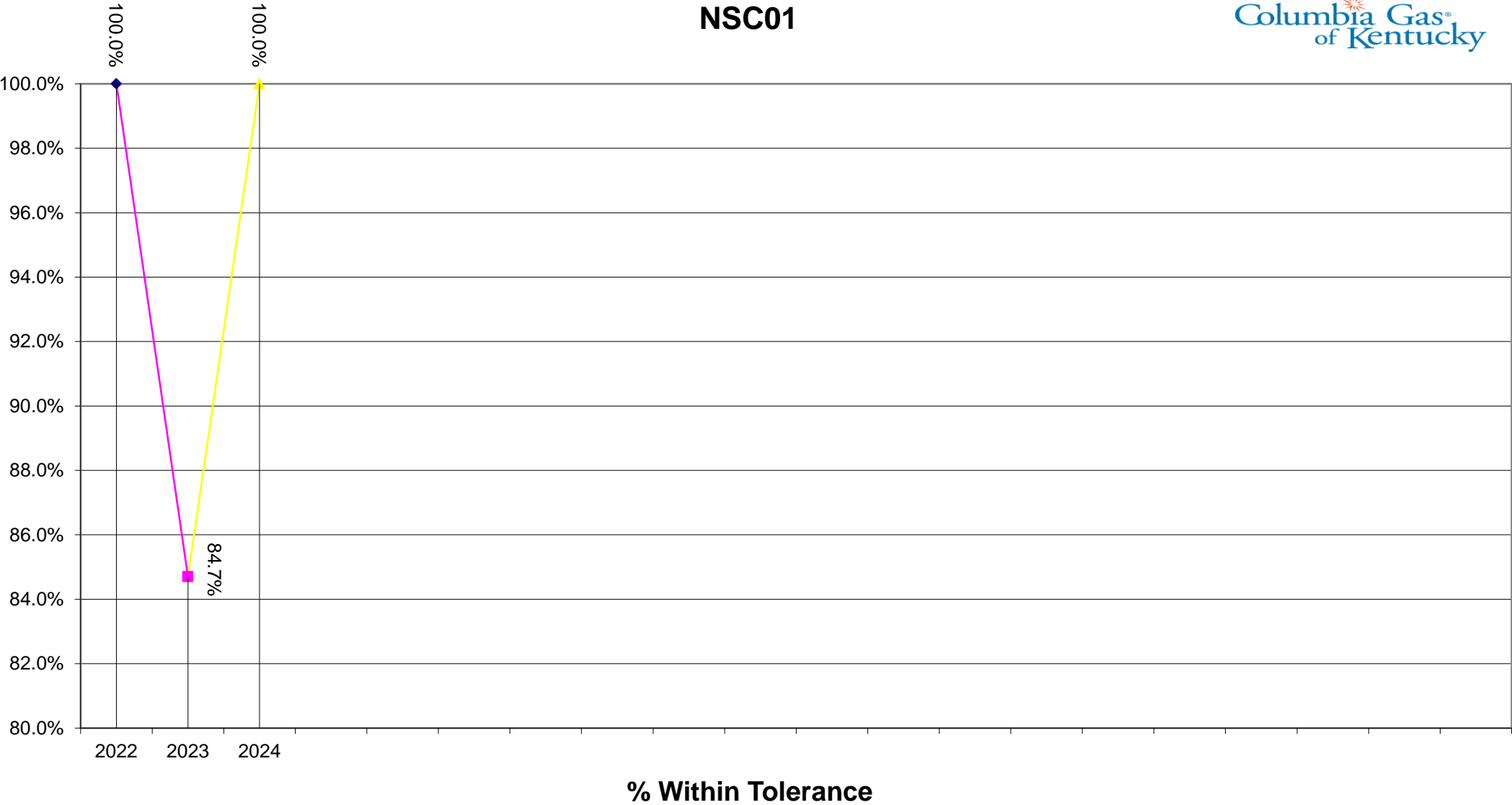
NLA02



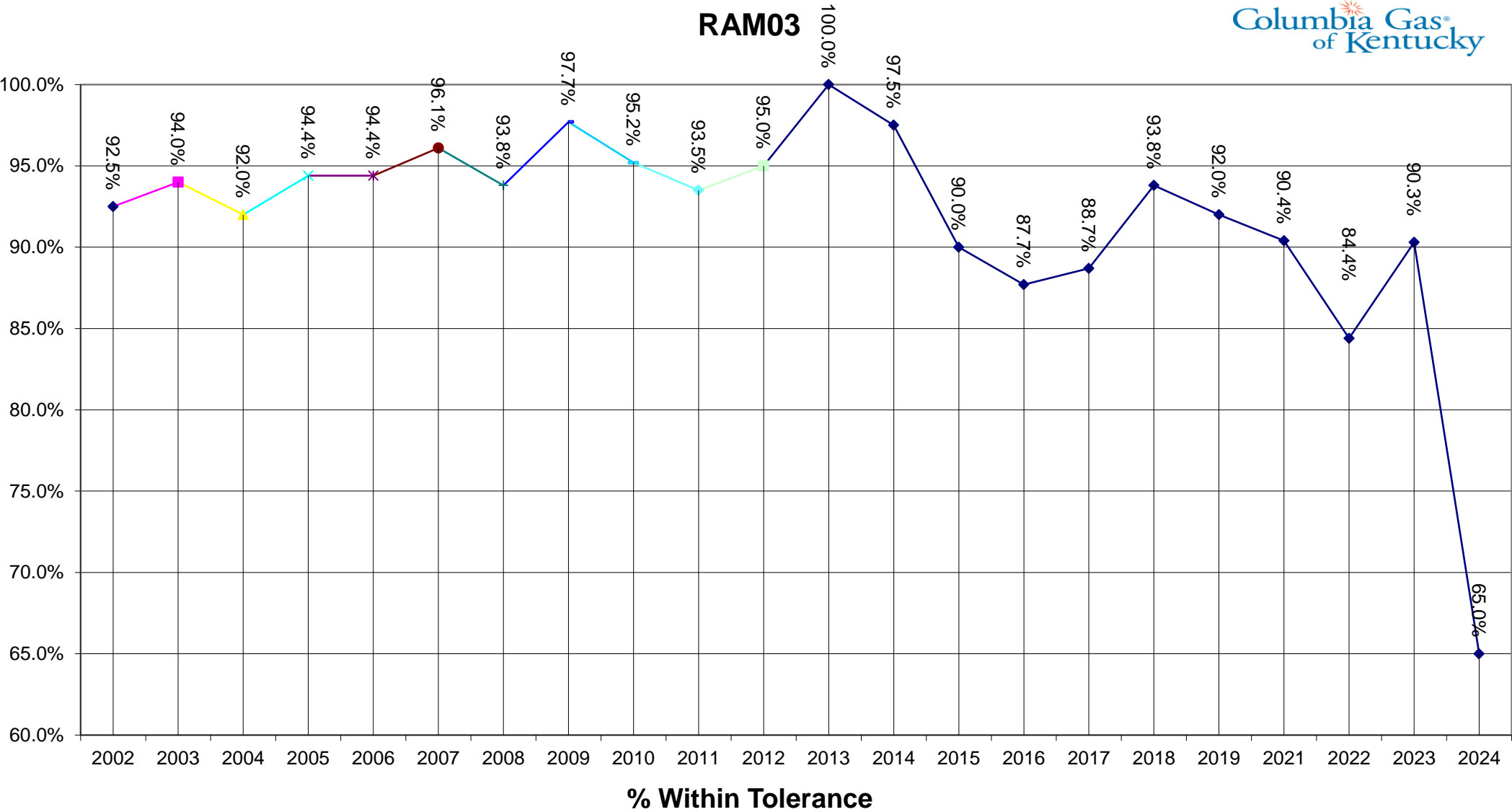
NRO01



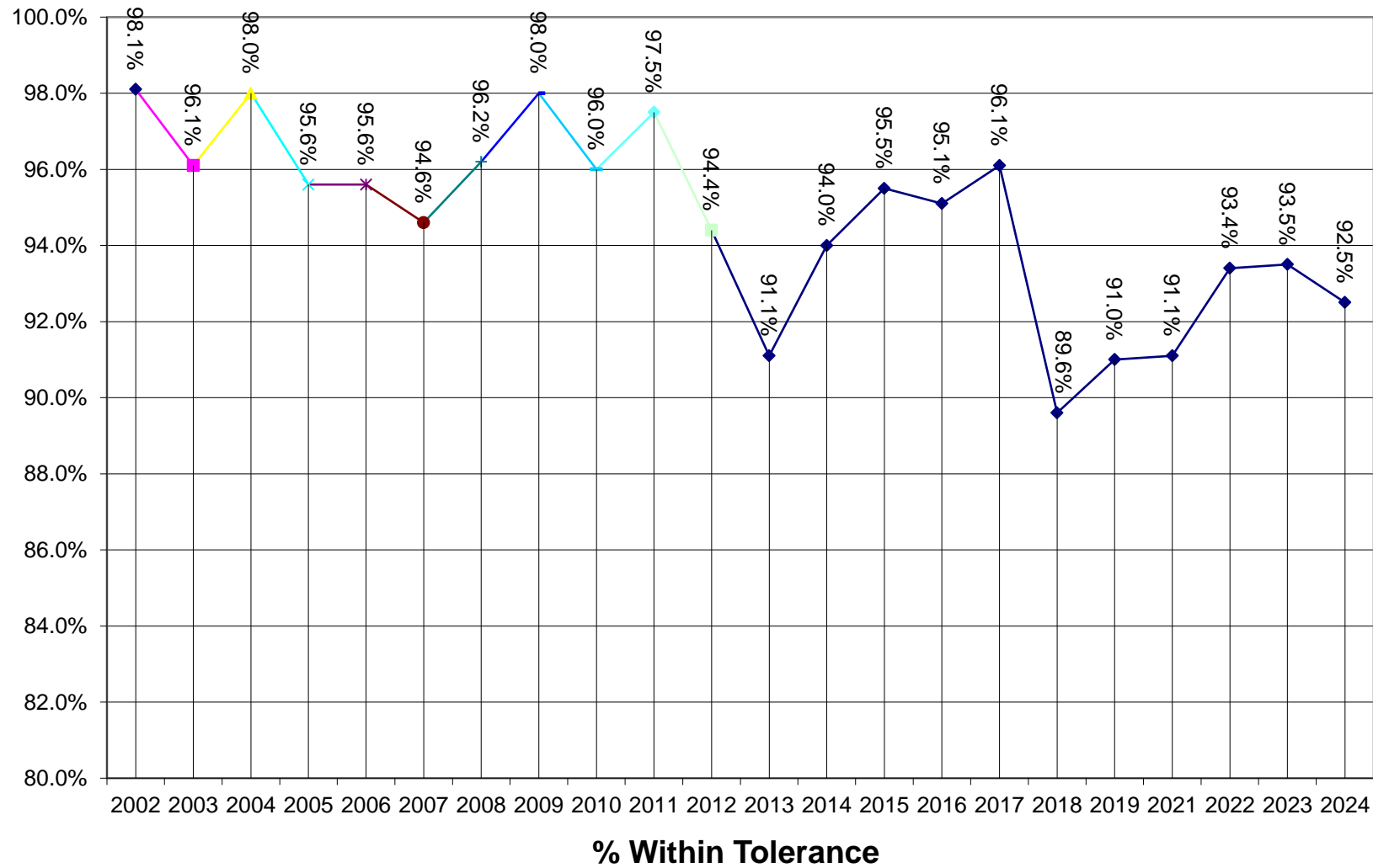
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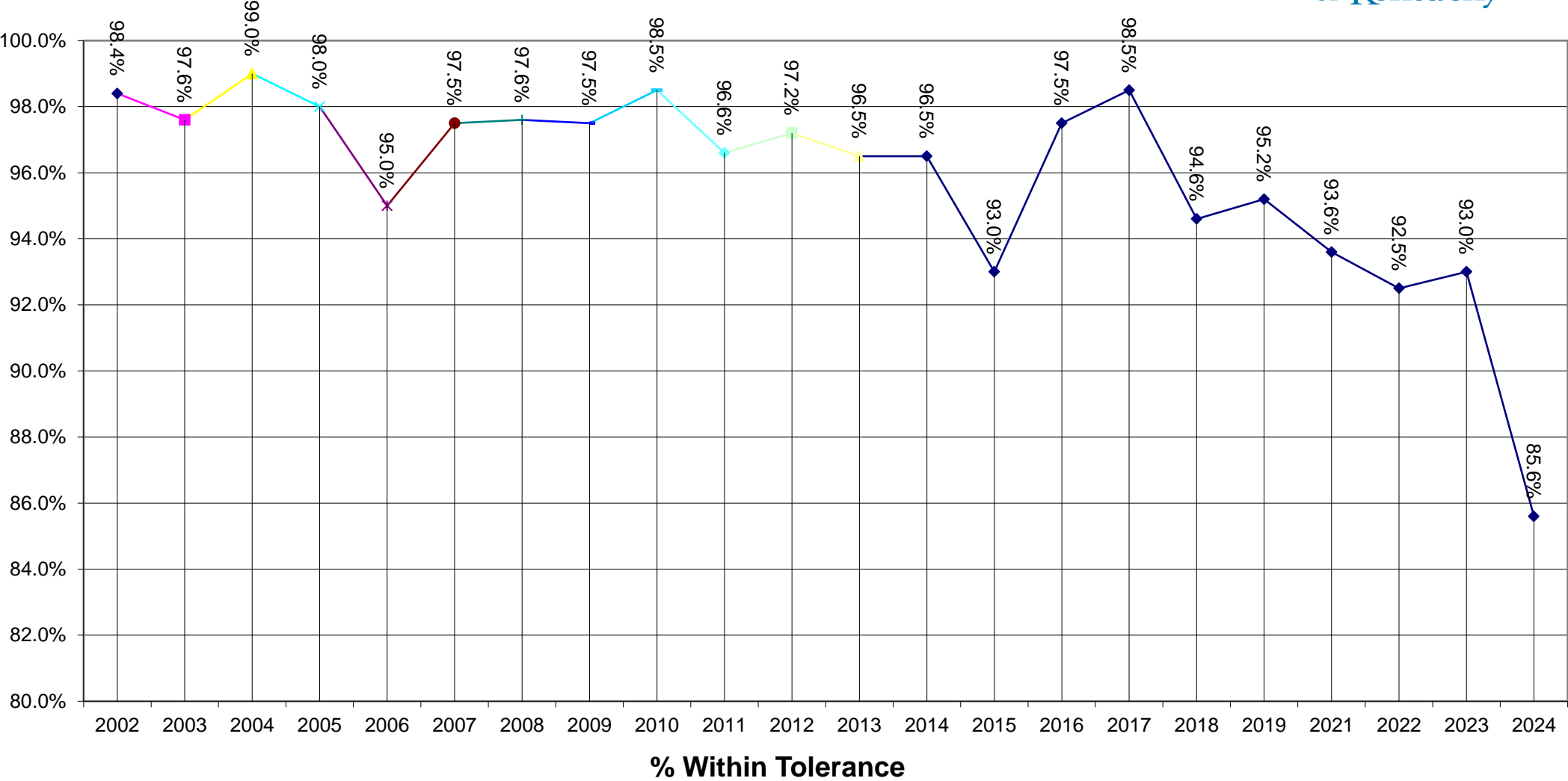
RAM03



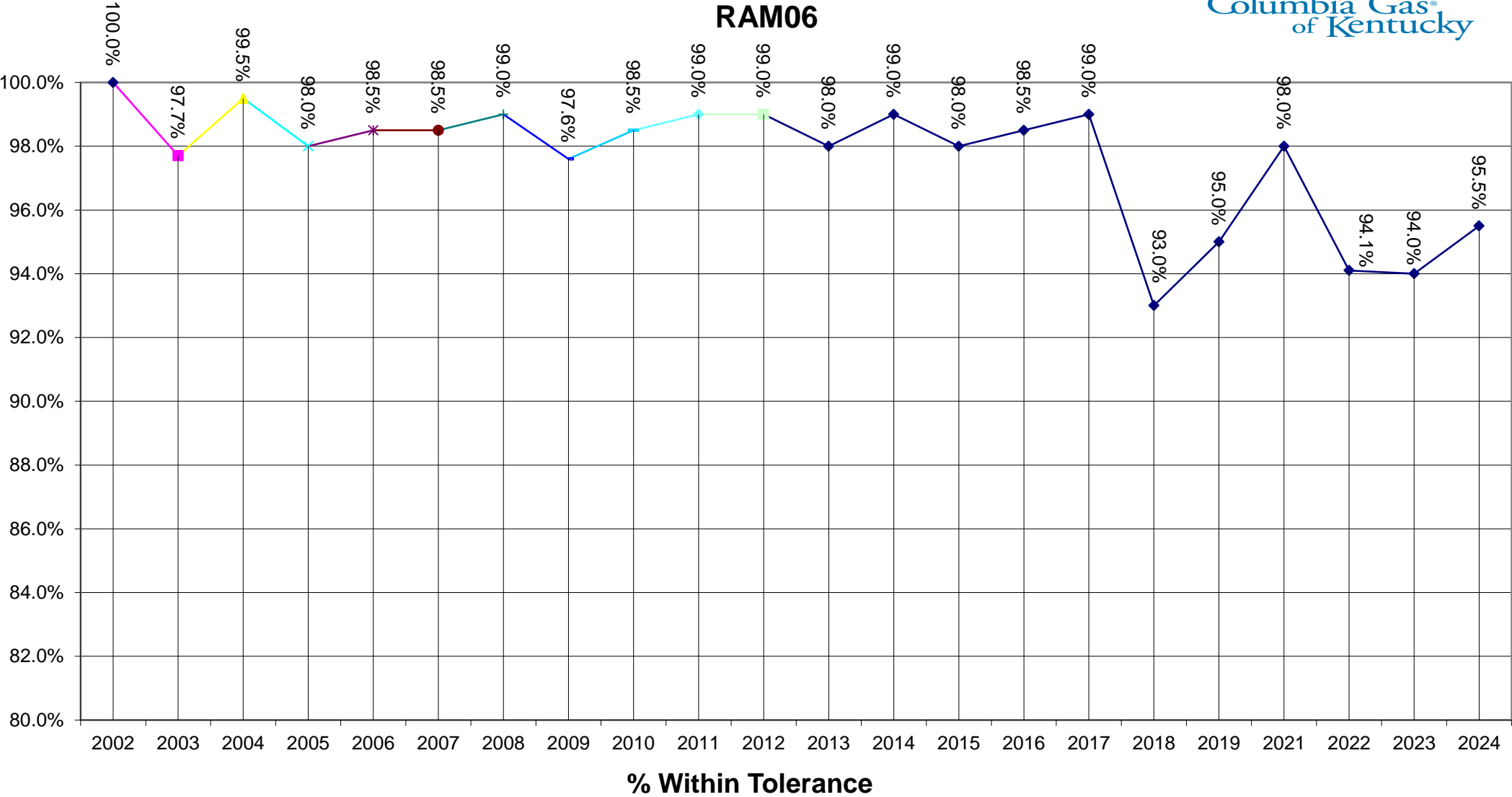
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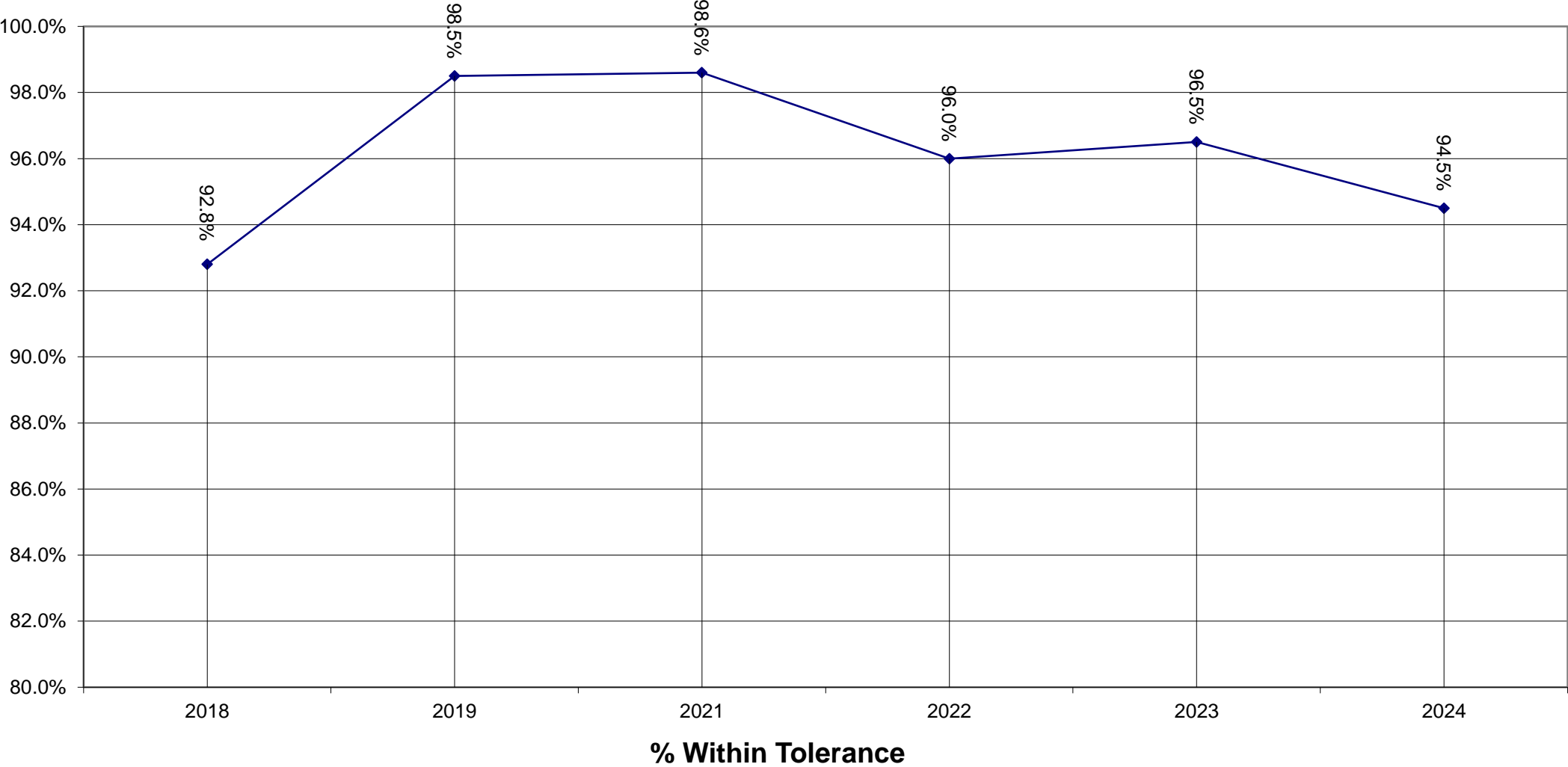
RAM05



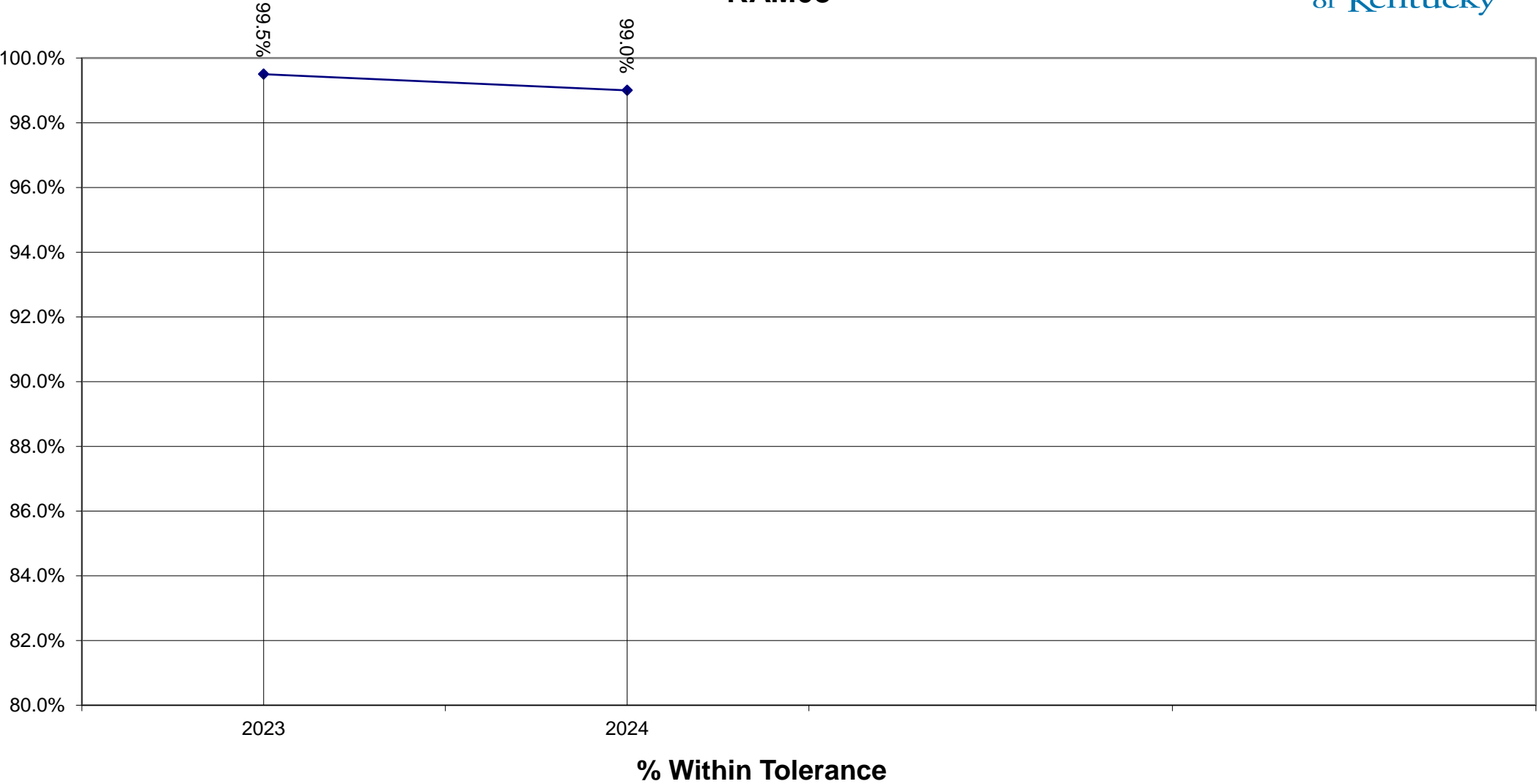
RAM06



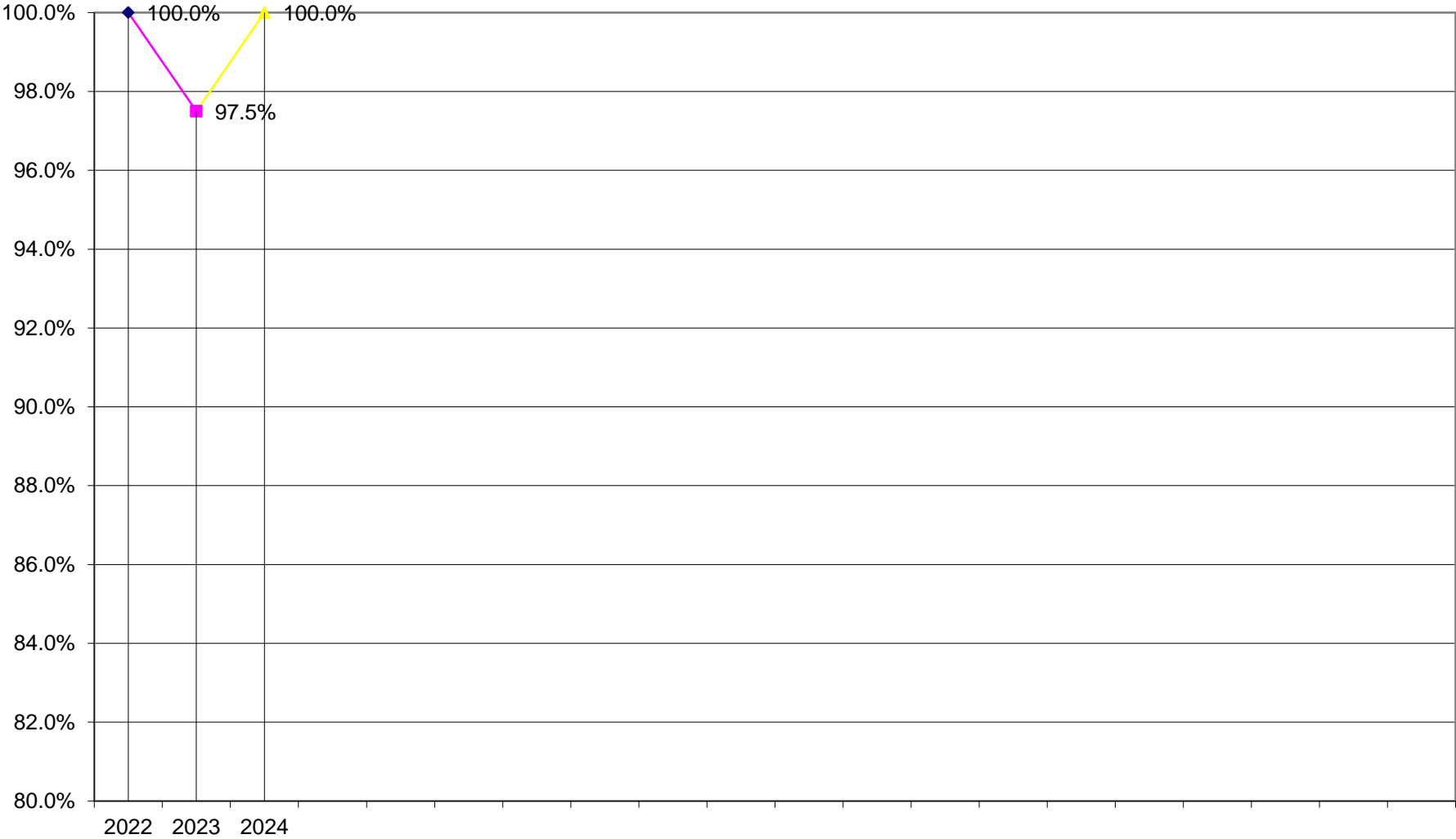
RAM07



RAM08

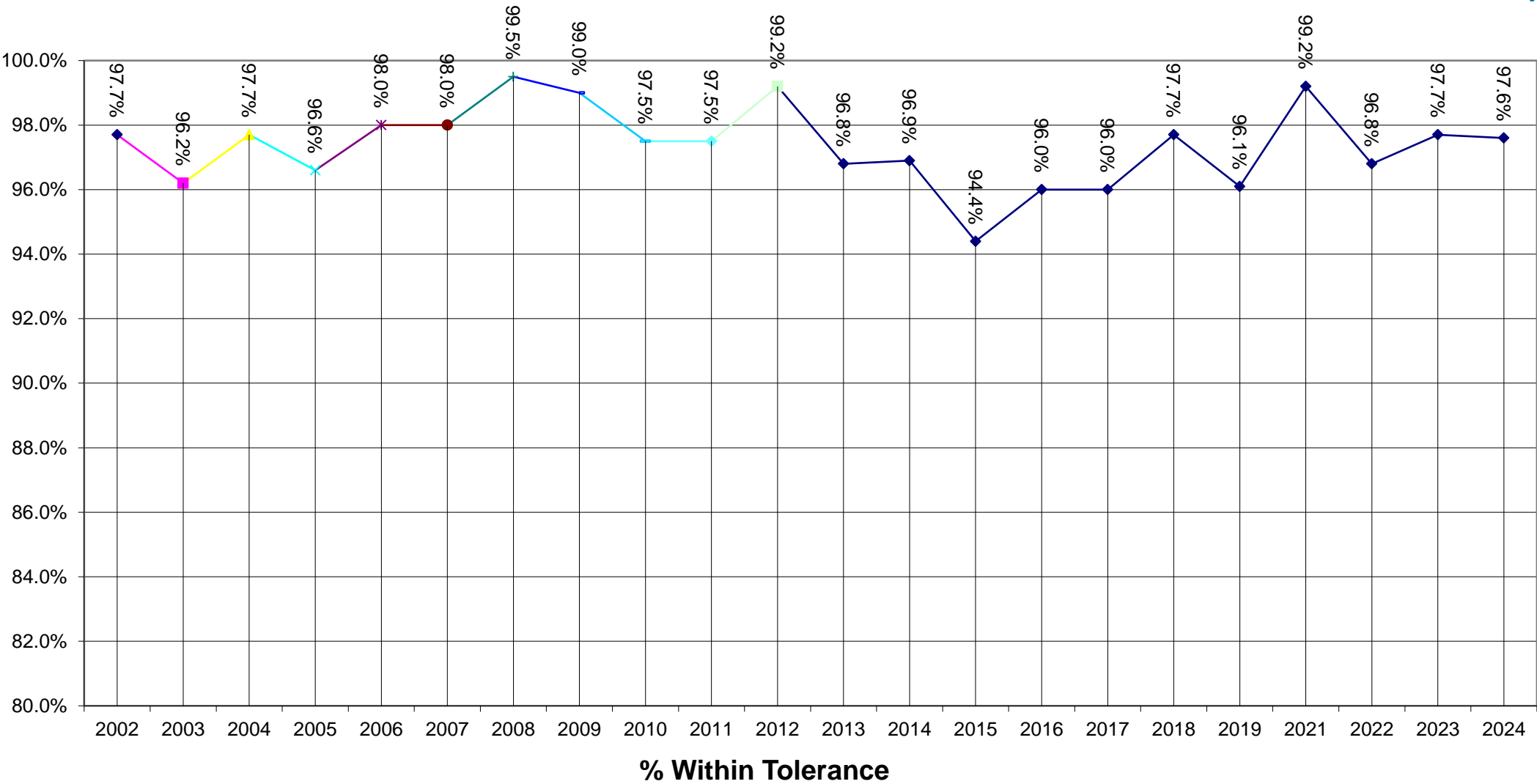


KYRIT01

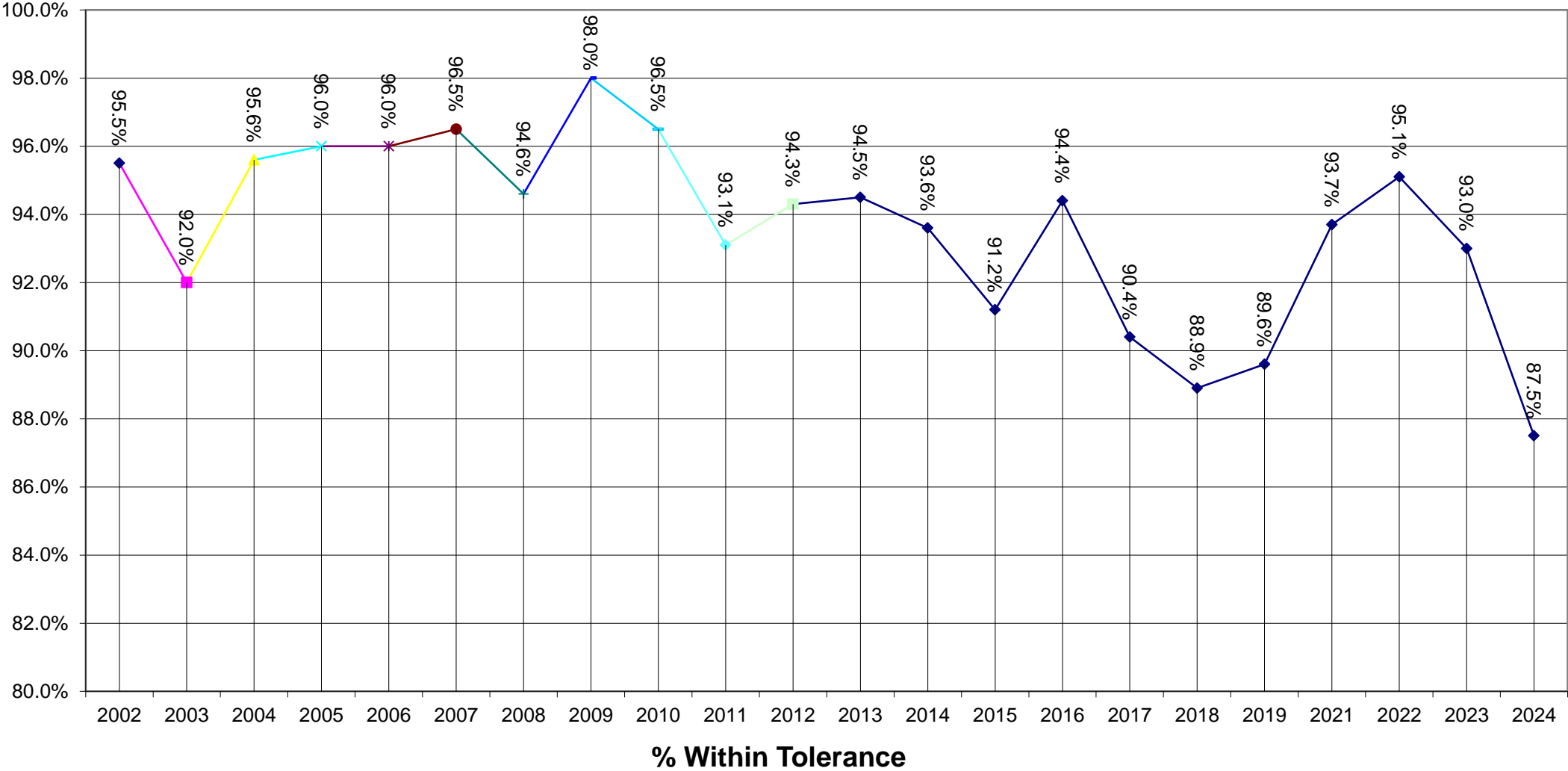


% Within Tolerance

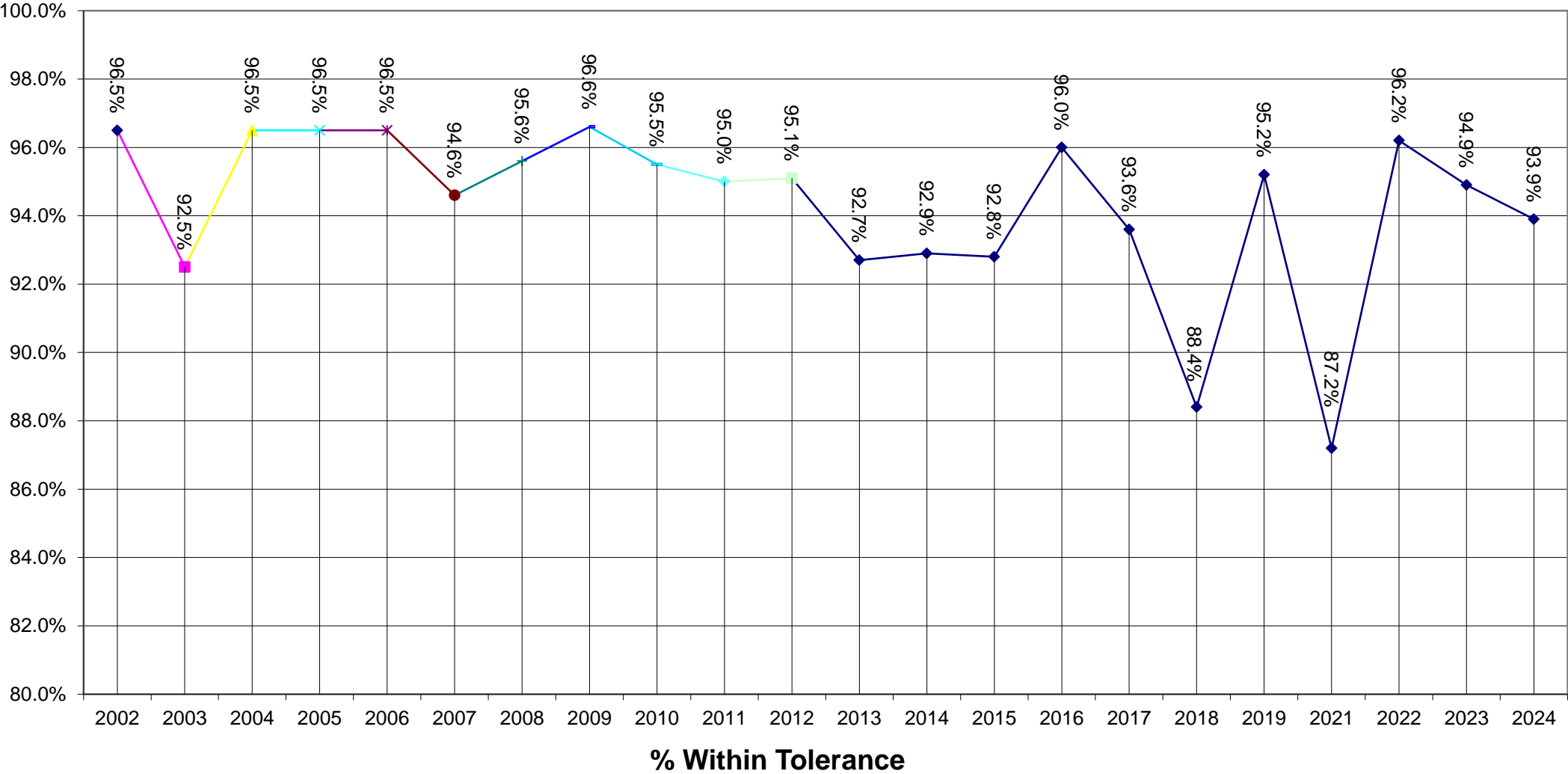
RLA03



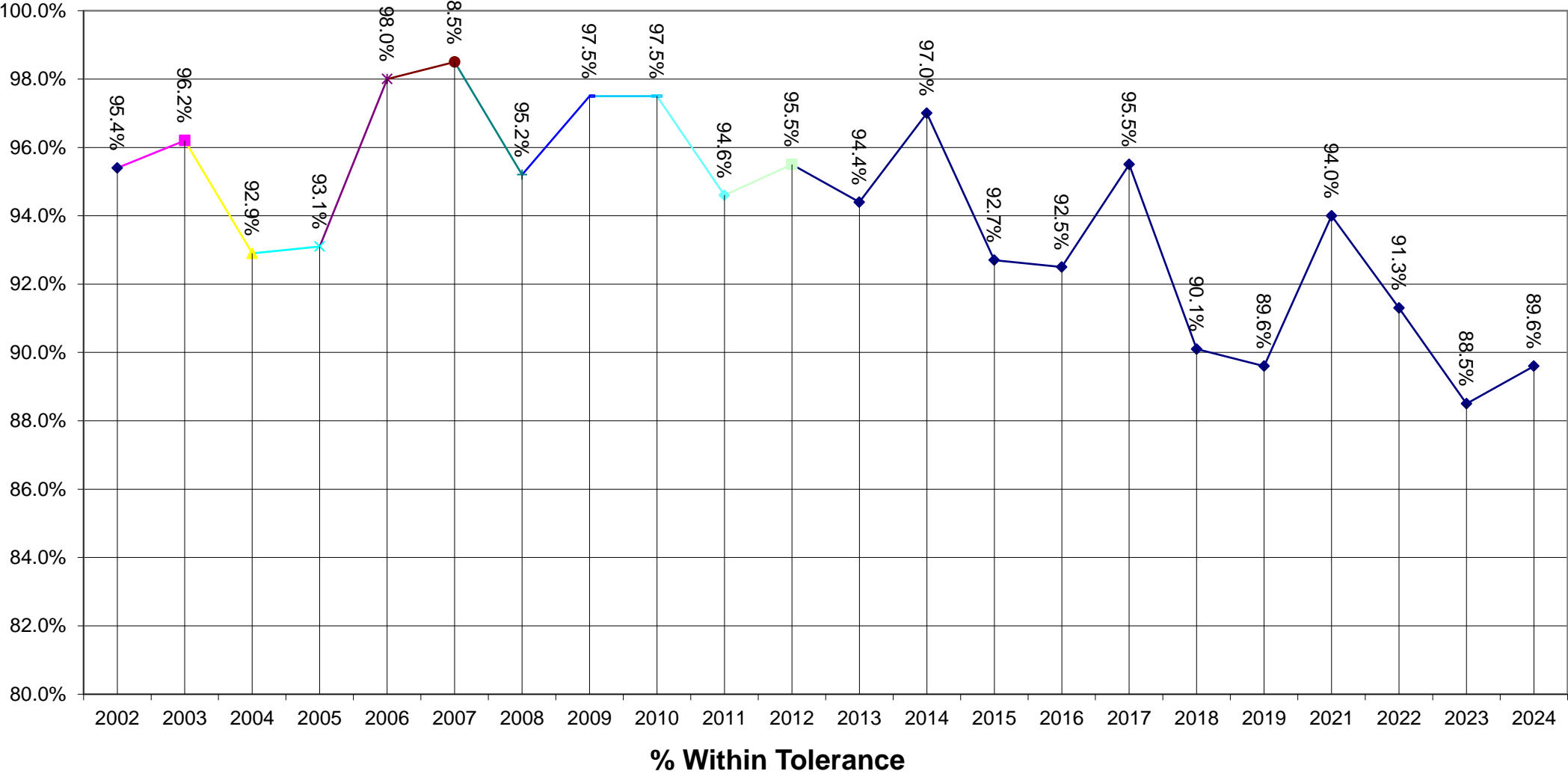
RRO01



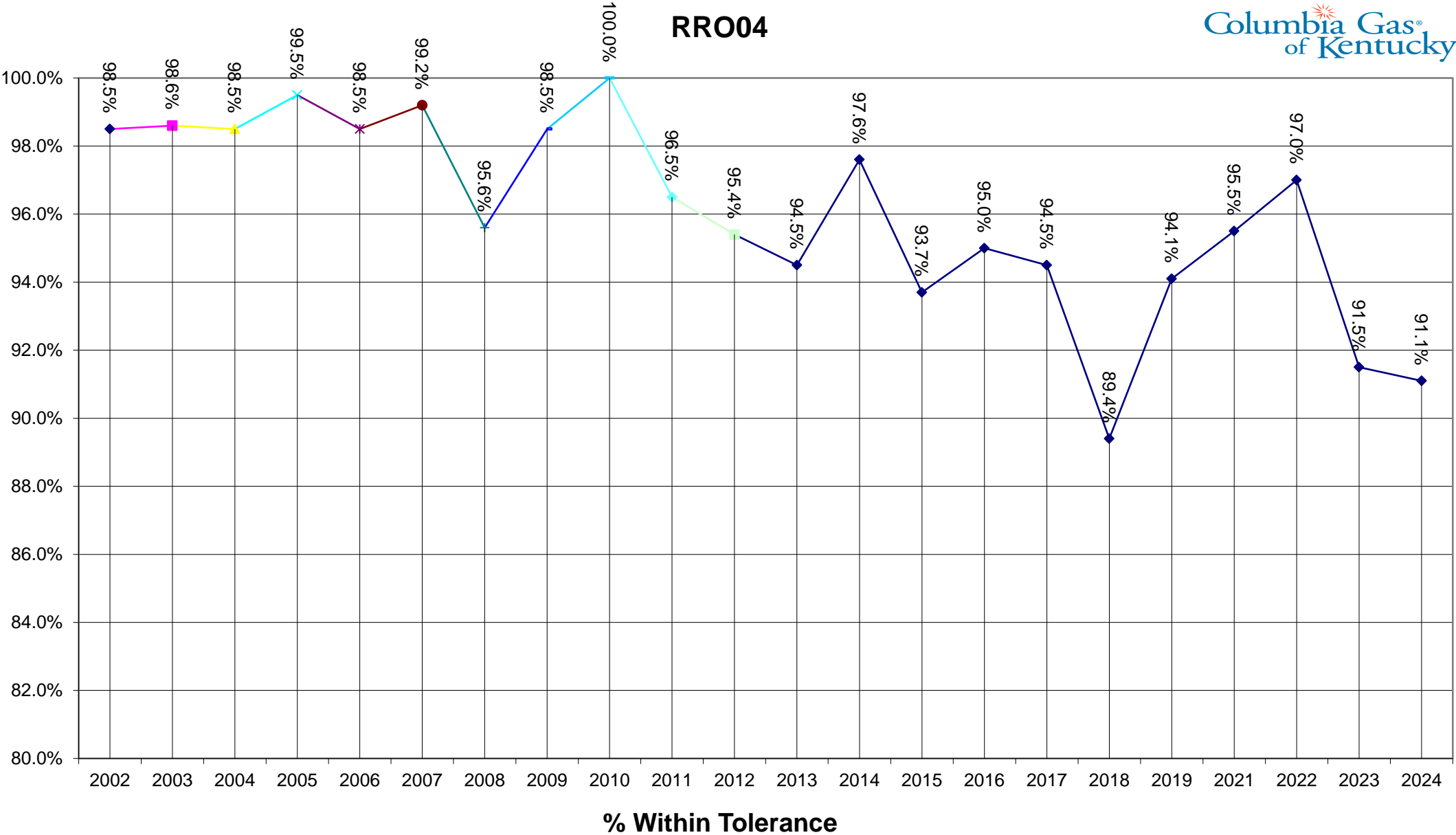
RRO02



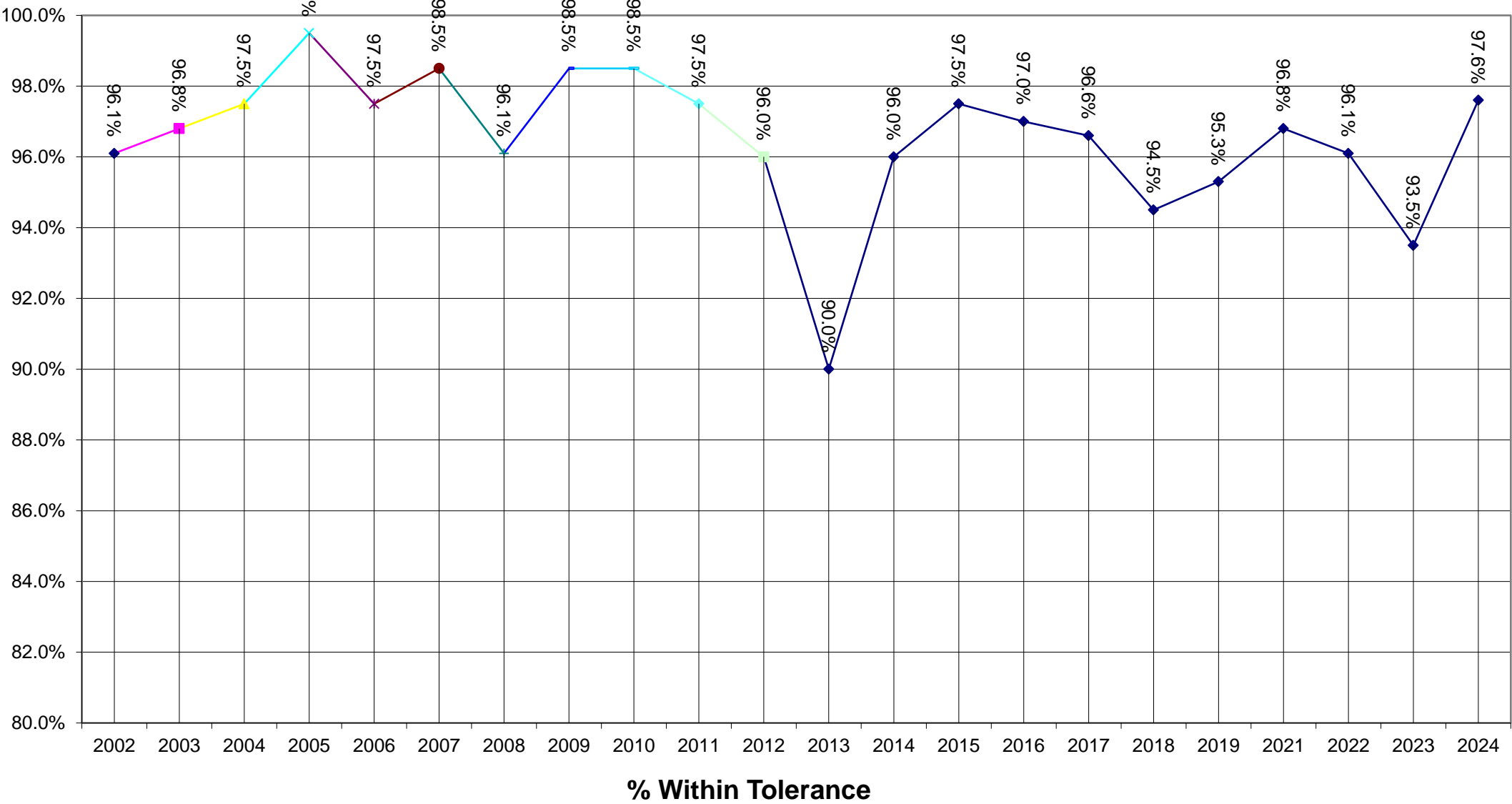
RRO03



RRO04



RSP01



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

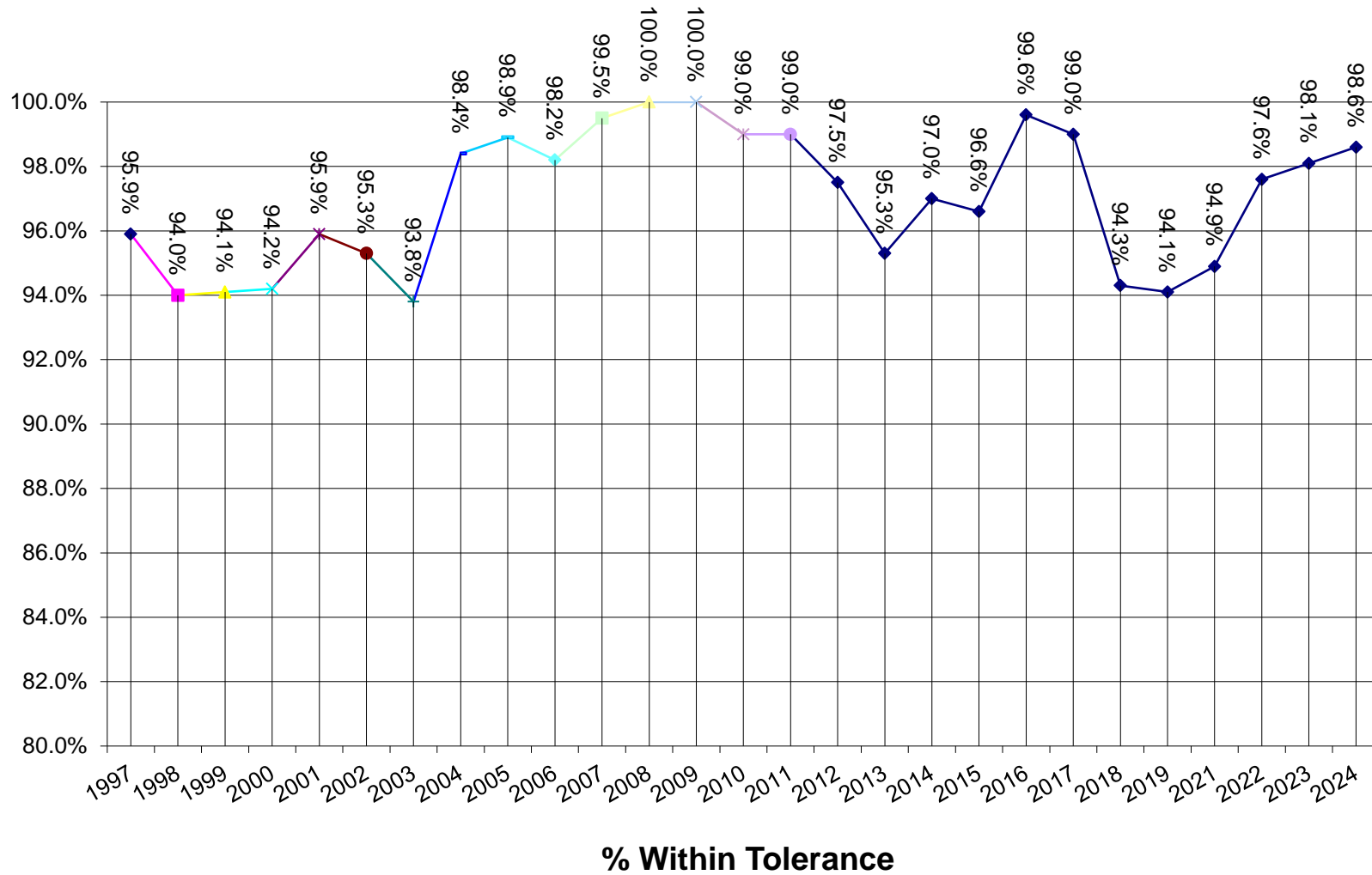


EXHIBIT E

PERCENTAGE OF LARGE VOLUME METER ACCURACY BY FAMILY

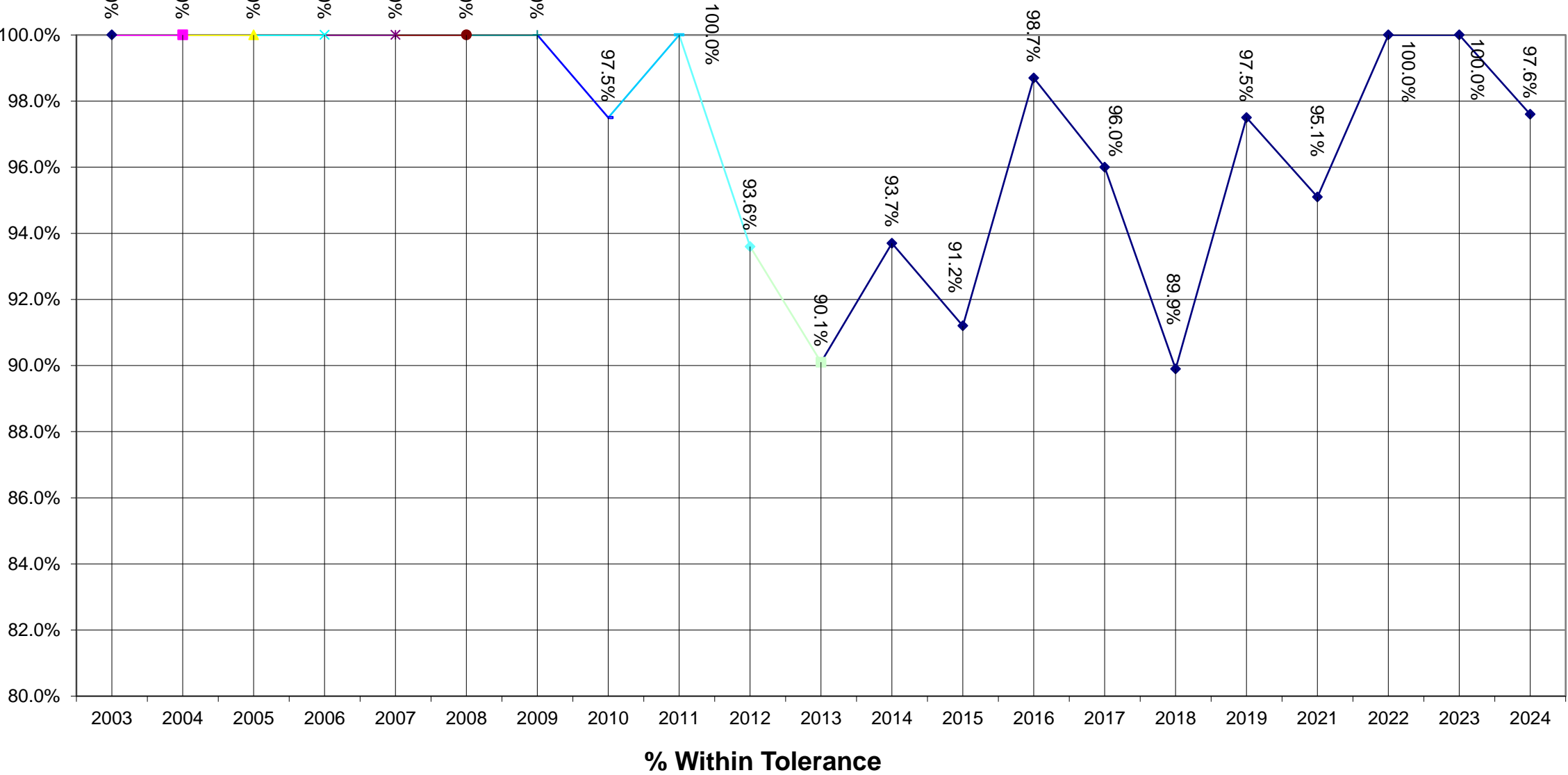
Exhibit E - represents the percentage of Large Volume meters sampled in 2024, that were within the +/- 2% rate, identified by homogenous group. We also show previous results of meter families sampled in prior years.

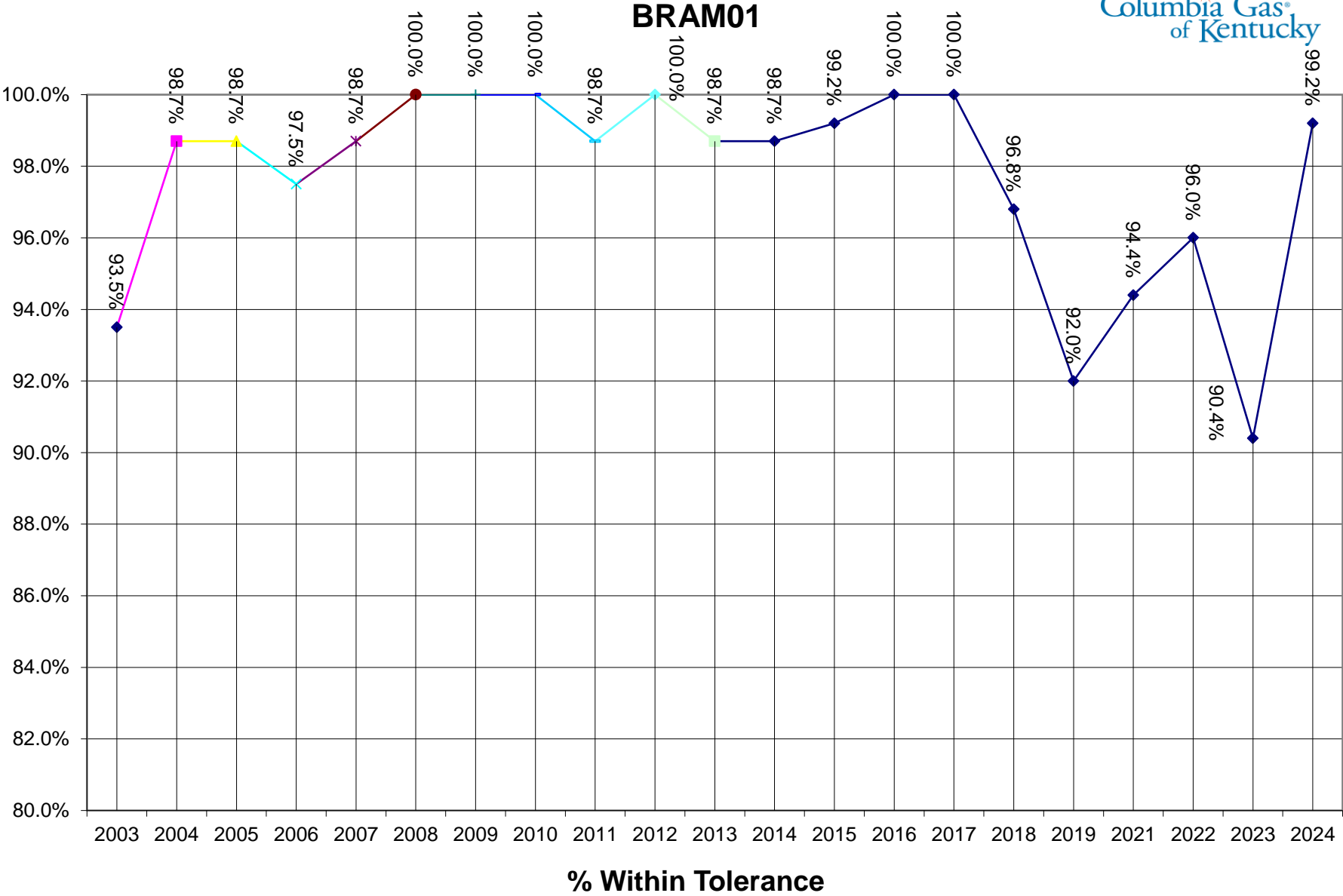
BRAM01 = Repaired American meters installed between 2014 & 2022

BRSP01 = Repaired Sprague meters installed between 2014 & 2019

BNAM01 = New American meters purchased between 2014 & 2022

BNAM01





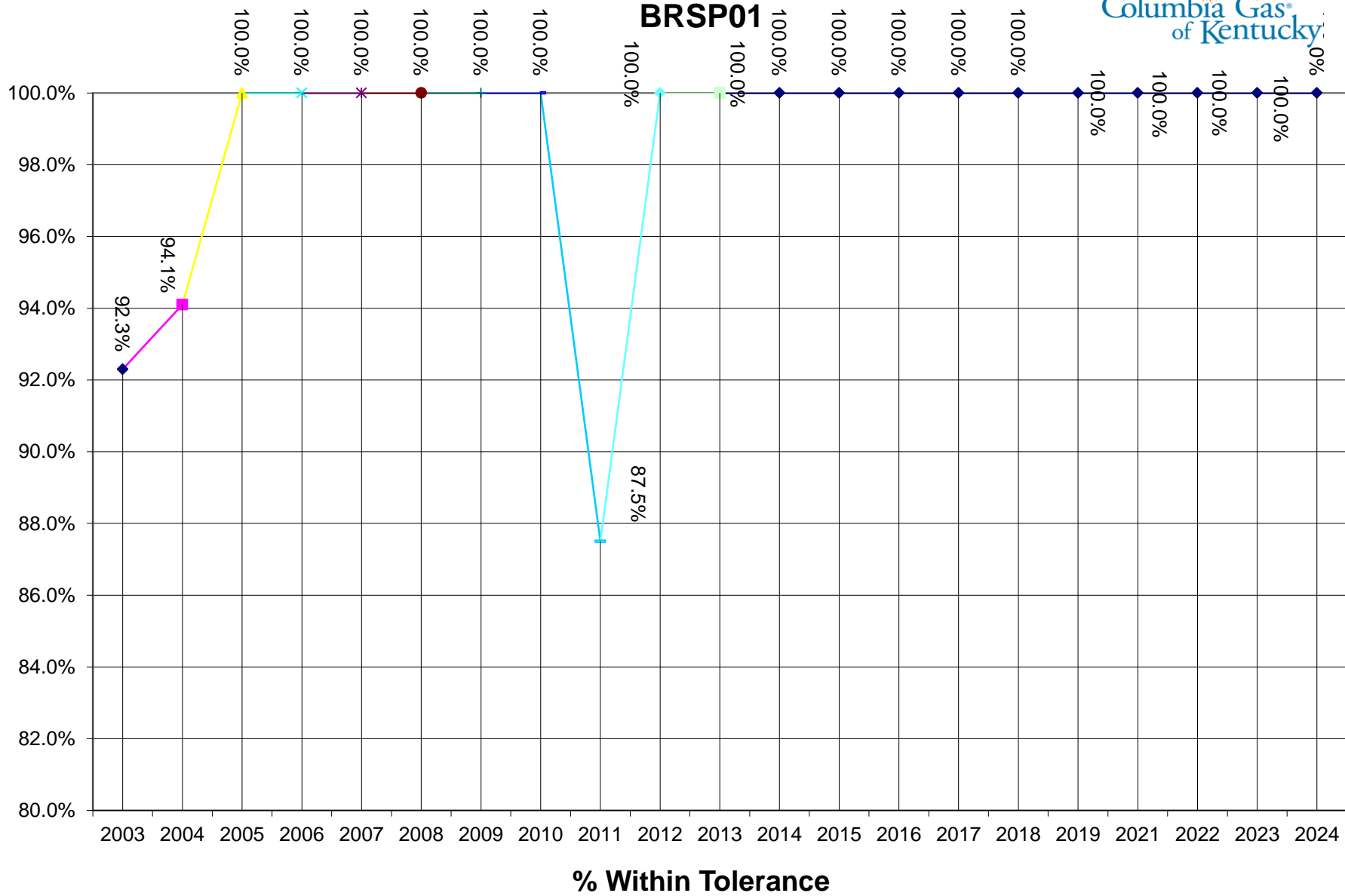


EXHIBIT F

COST SAVINGS

The 2024 sampling program resulted in changing 5,507 fewer meters than would have been changed under the 14-year plan Columbia Gas of Kentucky was following prior to meter sampling and changing 9,601 fewer meters than would have been required under a 10-year change-out program.

This represents yearly savings of \$1,134,442 compared to a 14-year plan

This represents yearly savings of \$1,977,806 compared to a 10-year plan

EXHIBIT G

TEST RESULTS OF NEW METERS

Columbia Gas of Kentucky purchased 5,076 new meters in 2024. The factory test sheets for the new meters purchased in 2024 are on file in the Lexington office.

No problems were found in the new 2024 purchases.