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2016 Mercury-added Data Analysis

Rachel Smith

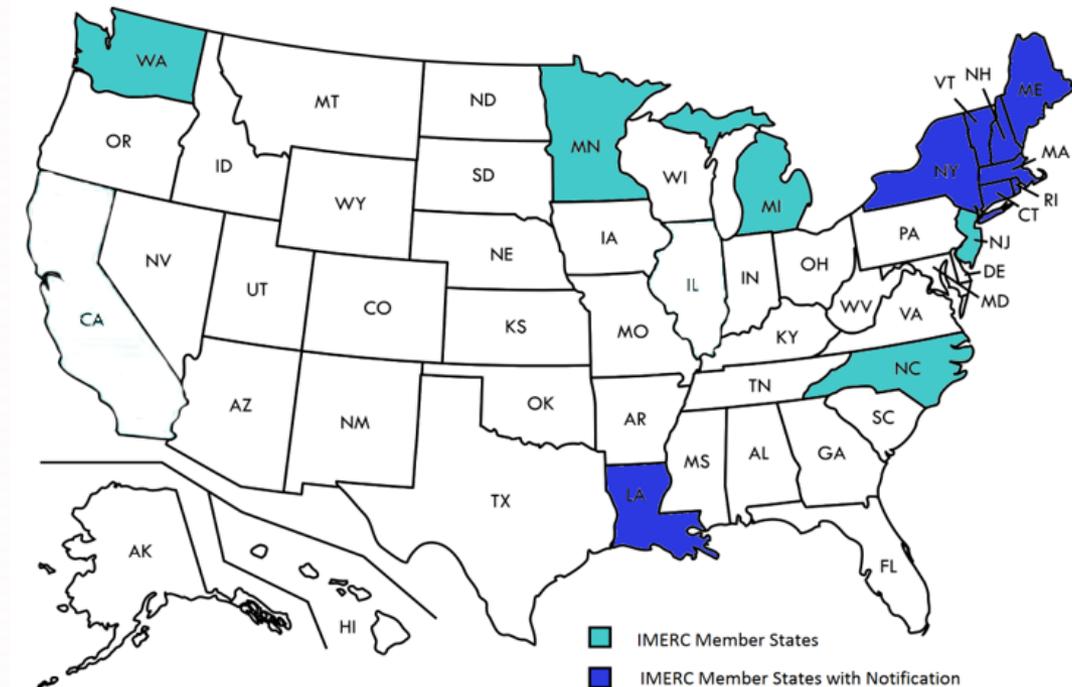
Interstate Mercury Education & Reduction Clearinghouse (IMERC)

- Launched in 2001 by the Northeast states.
- Provide ongoing technical & programmatic assistance to states that have enacted mercury education & reduction legislation.
- Act as single point of contact for industry & the public for information on mercury-added products & member states' mercury education & reduction programs.



Interstate Mercury Education & Reduction Clearinghouse (IMERC)

- States passed mercury legislation, including labeling, collection, notification, & phase-out/bans.
- There are 13 IMERC states; 8 require notification.



Mercury-Added Product Notification

- Applies to companies that manufacture, sell, distribute, or import a mercury-added products into CT, LA, ME, MA, NH, NY, RI, VT
- Report includes information on:
 - Products that contain intentionally-added mercury
 - Amount of mercury in the specific product (content range)
 - Total mercury used in product lines sold in the U.S.
- More than 665 companies in IMERC's Database
 - ~ 235 have confirmed a complete phase out
 - ~ 35 no longer sell in IMERC Notification States
 - Additional companies have closed, gone out of business, been acquired by another company, etc.
 - Current list of "active" filers is ~ 300



Mercury-Added Product Notification

- Companies report through IMERC's online e-filing system: <https://imerc.newmoa.org/Public>
- Types of forms:
 - Single Manufacturer
 - Lamp Manufacturer
 - Automobile Manufacturer
 - Multiple Manufacturers (Trade Associations)
- Classification of filers:
 - Manufacturer
 - Distributor / Wholesaler
 - Importer
- Analysis focuses on data from OEMs

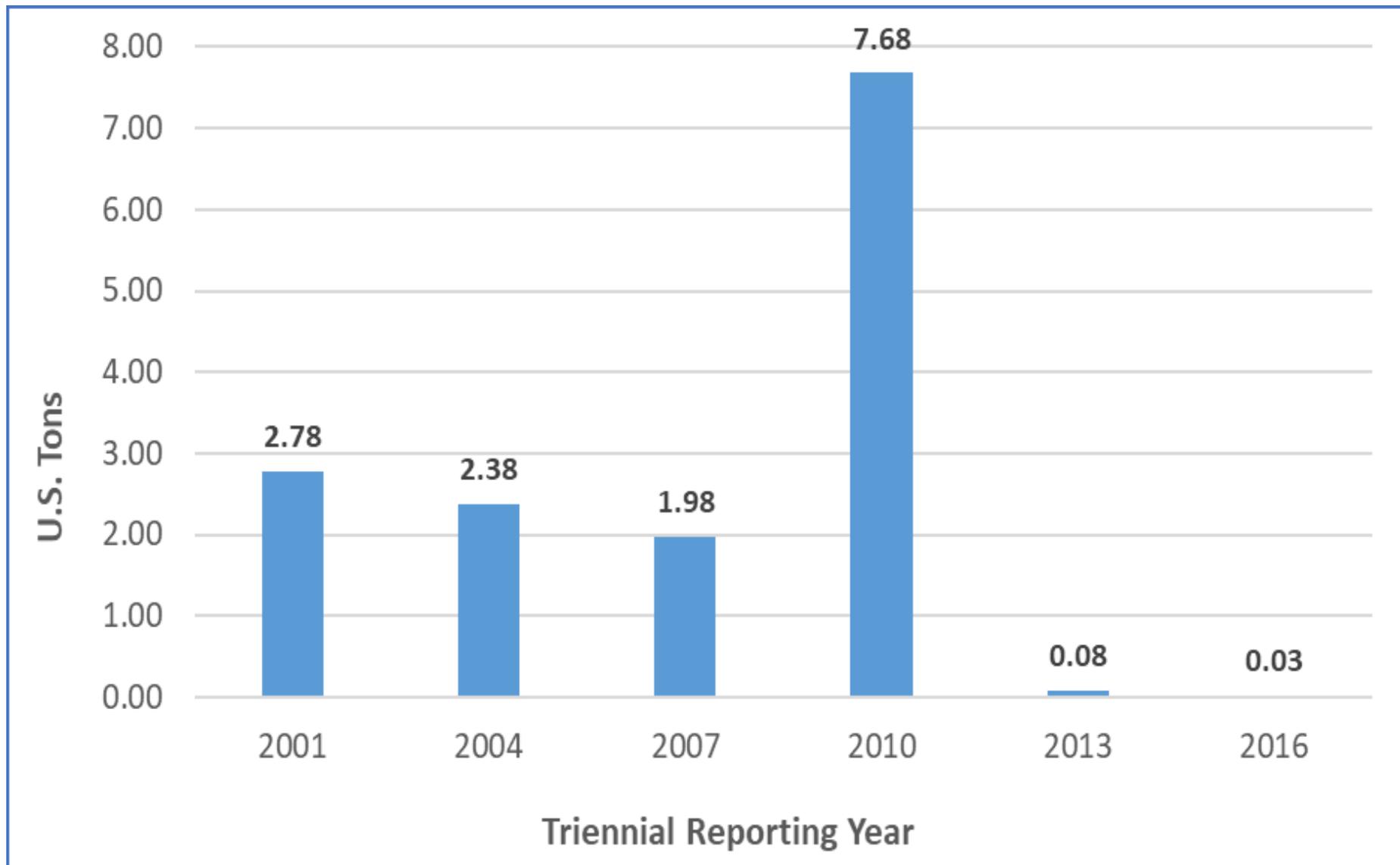


2016 Mercury-Add Product Data Analysis

(Data reported in U.S. tons)

Product	2001	2004	2007	2010	2013	2016	Percent Change
Batteries	2.78	2.38	1.98	7.68	0.08	0.03	↓ 98.92%
Dental Amalgam	30.77	26.61	19.96	17.08	15.97	11.04	↓ 64.12%
Formulated Products	1.14	1.02	1.45	1.37	0.52	0.77	↓ 32.46%
Lamps	10.78	10.17	11.05	8.54	5.42	3.10	↓ 71.24%
Measuring Devices	5.12	3.04	1.06	0.70	0.58	0.77	↓ 84.86%
Misc. Products	4.26	2.41	2.78	2.39	2.16	2.22	↓ 47.89%
Switches & Relays	60.07	51.44	29.93	19.43	19.43	19.43	↓ 67.65%
Thermostats	14.63	14.45	3.74	0.02	0.05	0	↓ 100%
TOTAL Mercury	129.55	111.52	71.95	57.21	44.21	37.36	↓ 71.16%

Mercury-added Batteries

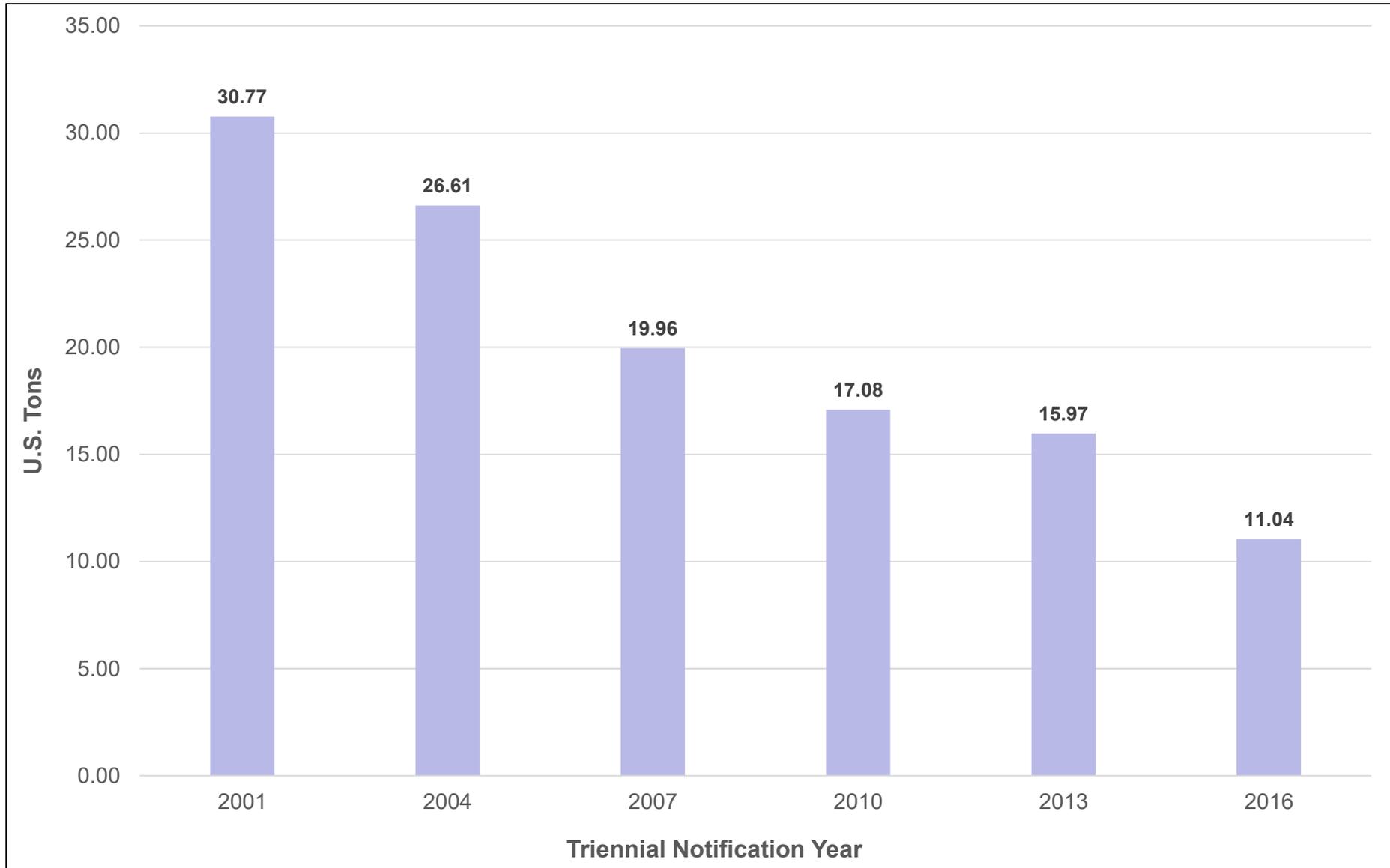


Mercury-added Battery Observations

- Total decline of almost 99%
- 51 companies have confirmed mercury phase-out
- 16 companies included in the 2016 analysis
- ~94% reporting compliance for this category
- 1 company has not yet submitted their 2016 notification
 - They are included in the analysis & sales are assumed to be the same as 2013
 - They have notified IMERC that they phased-out in May 2017; so their contribution for 2018 reporting year will be “0” & this category will be considered completely phased out
- 4 states ban/restrict sale of mercury-added batteries: CT, LA, ME, RI



Dental Amalgam

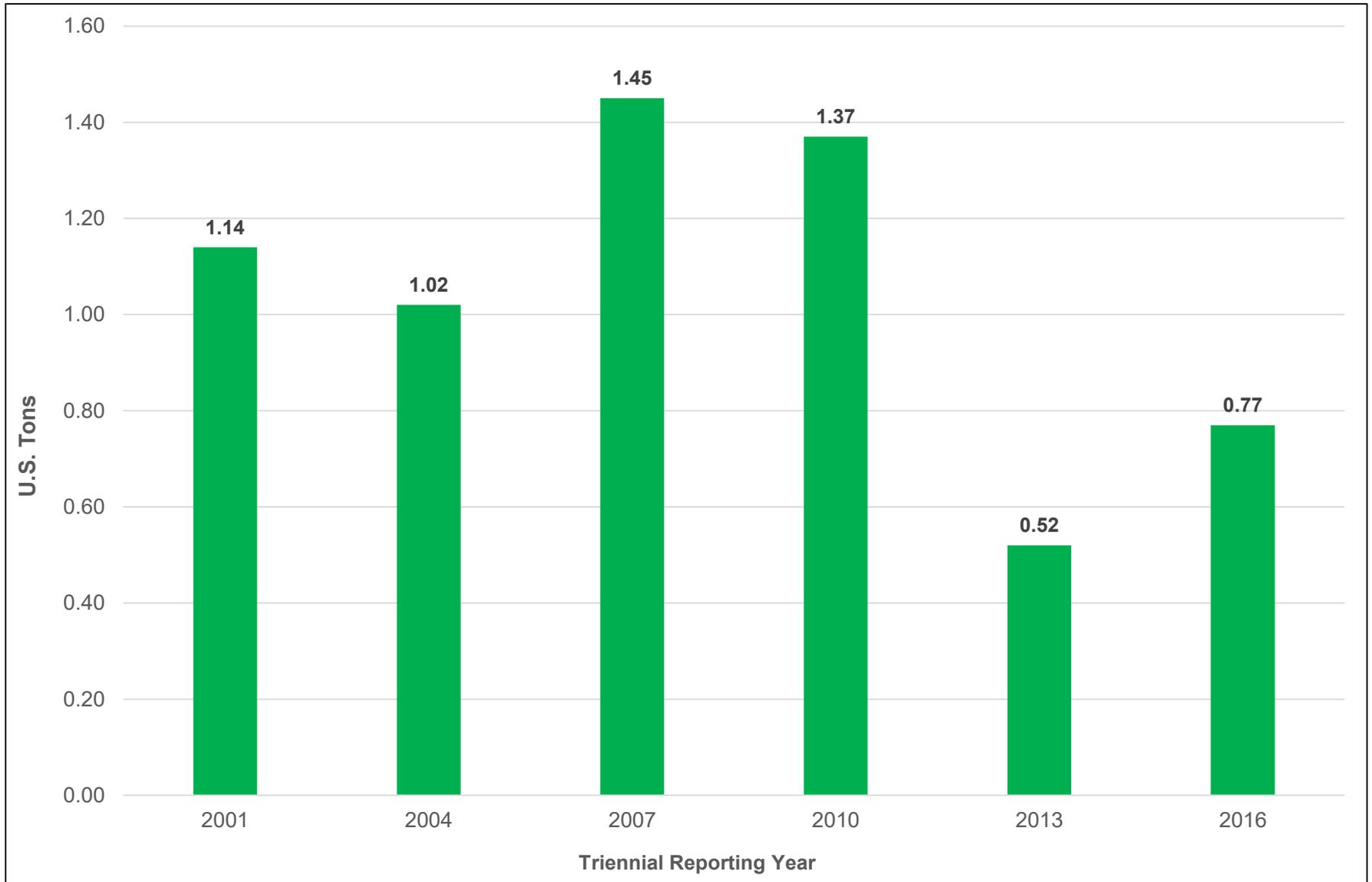


Dental Amalgam Observations

- Steady decline over the years, with a total decrease of 64%
- 5 companies included in the 2016 analysis; represents 100% reporting compliance for this category
- All 5 of these companies have consistently reported since 2001
- IMERC became aware of 1 additional company suspected of manufacturing/selling mercury amalgam in the U.S.; IMERC has sent letters to this company, but they have not reported yet
- 1 state restricts the sale of dental amalgam due to its mercury content >10 mg: RI (note: dental amalgam is not considered a “mercury-added product” in CT or LA)



Formulated Products

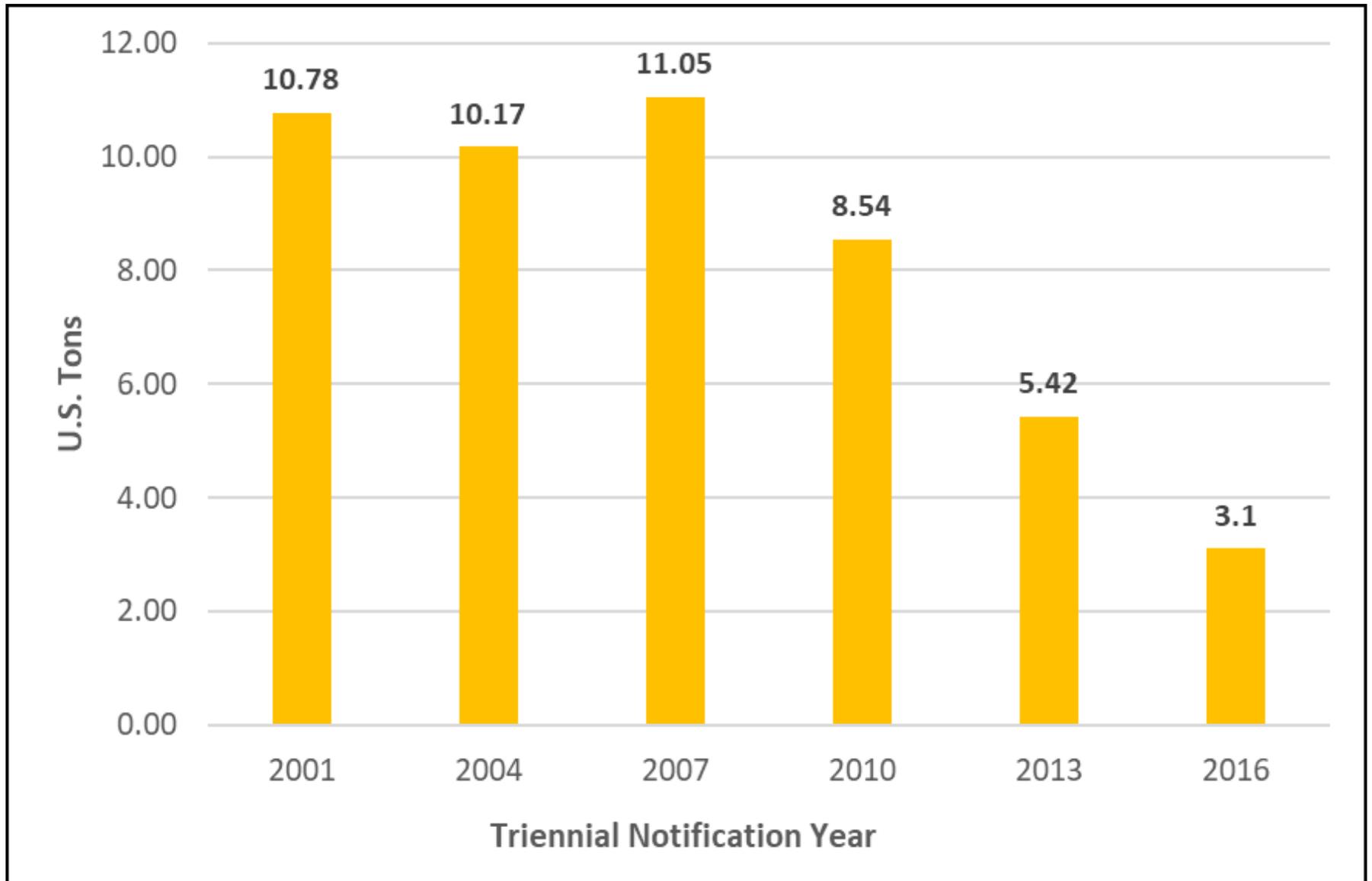


Formulated Products Observations



- Overall decline of more than 32% - however slight increase in recent years as opposed to previous, which is likely due to at least 2 company mergers that resulted in firms that had never before reported becoming subject to Notification requirements
- 16 companies have confirmed mercury phase-out (e.g., thimerosal)
- 29 companies included in the 2016 analysis; represents 93% reporting compliance for this category
- 2 companies have not yet reported for their 2016 notification, but they are included in the analysis, & sales are assumed to be the same as in previous years
- 4 states ban/restrict sale of formulated products with mercury:
 - CT, LA, RI due to mercury content restrictions
 - MN bans mercury use in cosmetics

Mercury-added Lamps

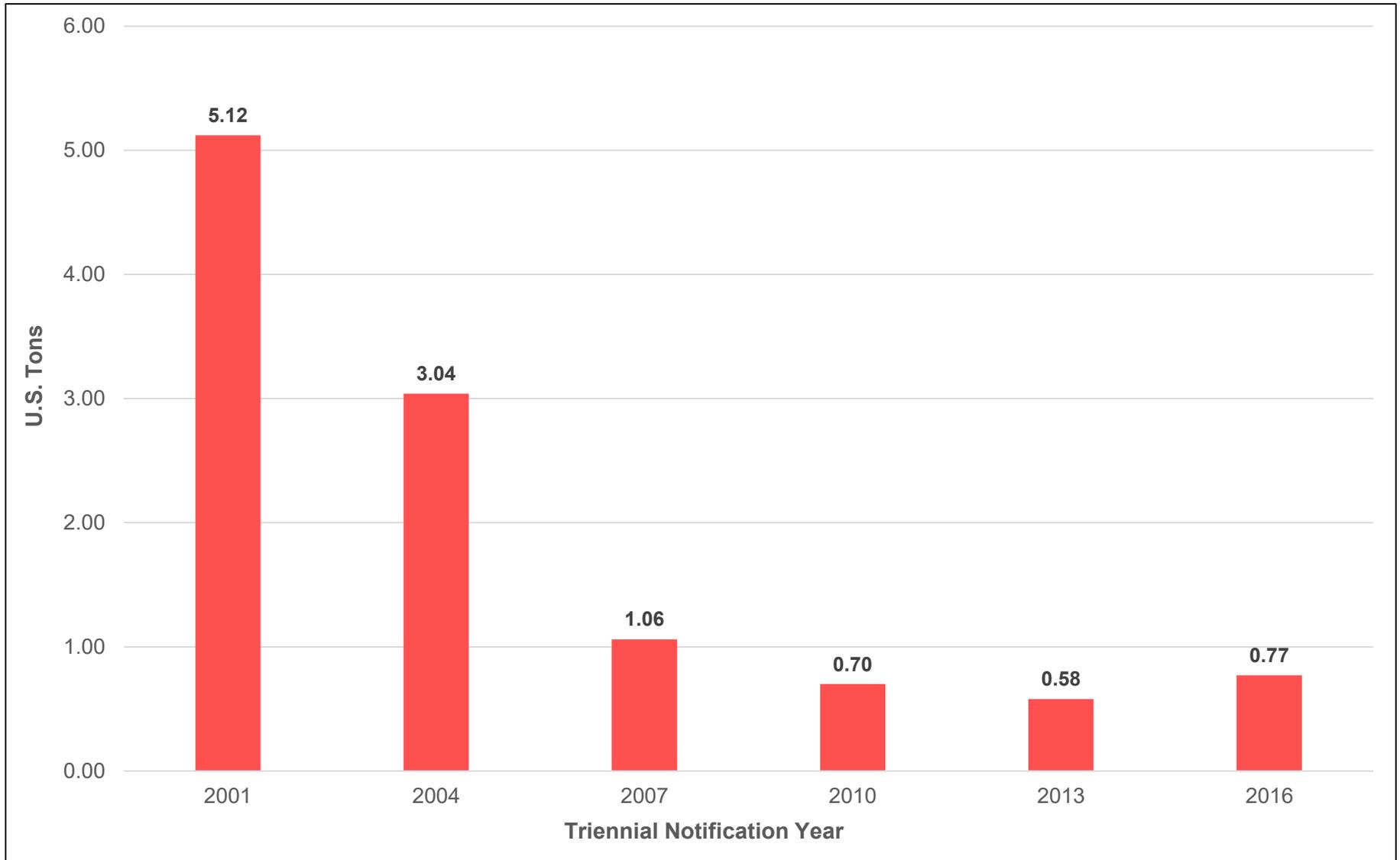


Mercury-added Lamp Observations

- Total decline of more than 71%
- 49 companies have confirmed mercury phase-out
- 178 companies included in the 2016 analysis
- ~ 93% reporting compliance for this category
- 12 companies have not yet reported for their 2016 notification, but they are included in the analysis & sales are assumed to be the same as in previous years
- 5 states ban/restrict sale of mercury-added lamps:
 - CT, LA, RI due to mercury content restrictions
 - VT bans neon lamps



Measuring Devices

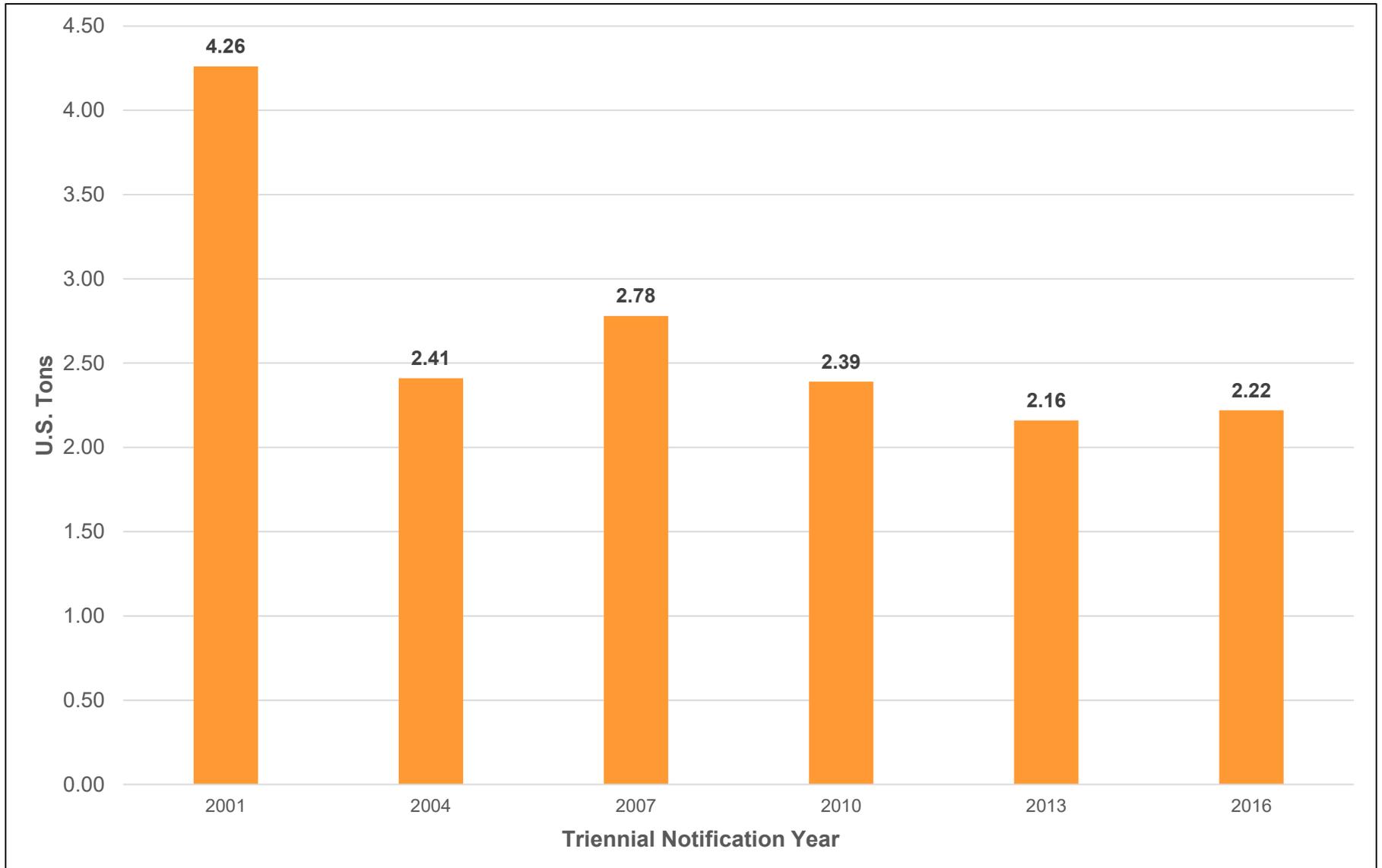


Measuring Device Observations

- Overall decline of almost 85% - however slight increase in recent years likely due to IMERC having identified additional companies that never reported before
- 12 companies have confirmed mercury phase-out
- 11 companies included in the 2016 analysis
- Represents 91% reporting compliance for this category
- 1 company has not yet reported for their 2016 notification, but they are included in the analysis & sales are assumed to be the same as in a previous reporting year
- 11 states ban/restrict sale of certain measuring devices containing mercury: CT, LA, ME, MA, MI, MN, NH, NY, RI, VT, WA



Miscellaneous Products

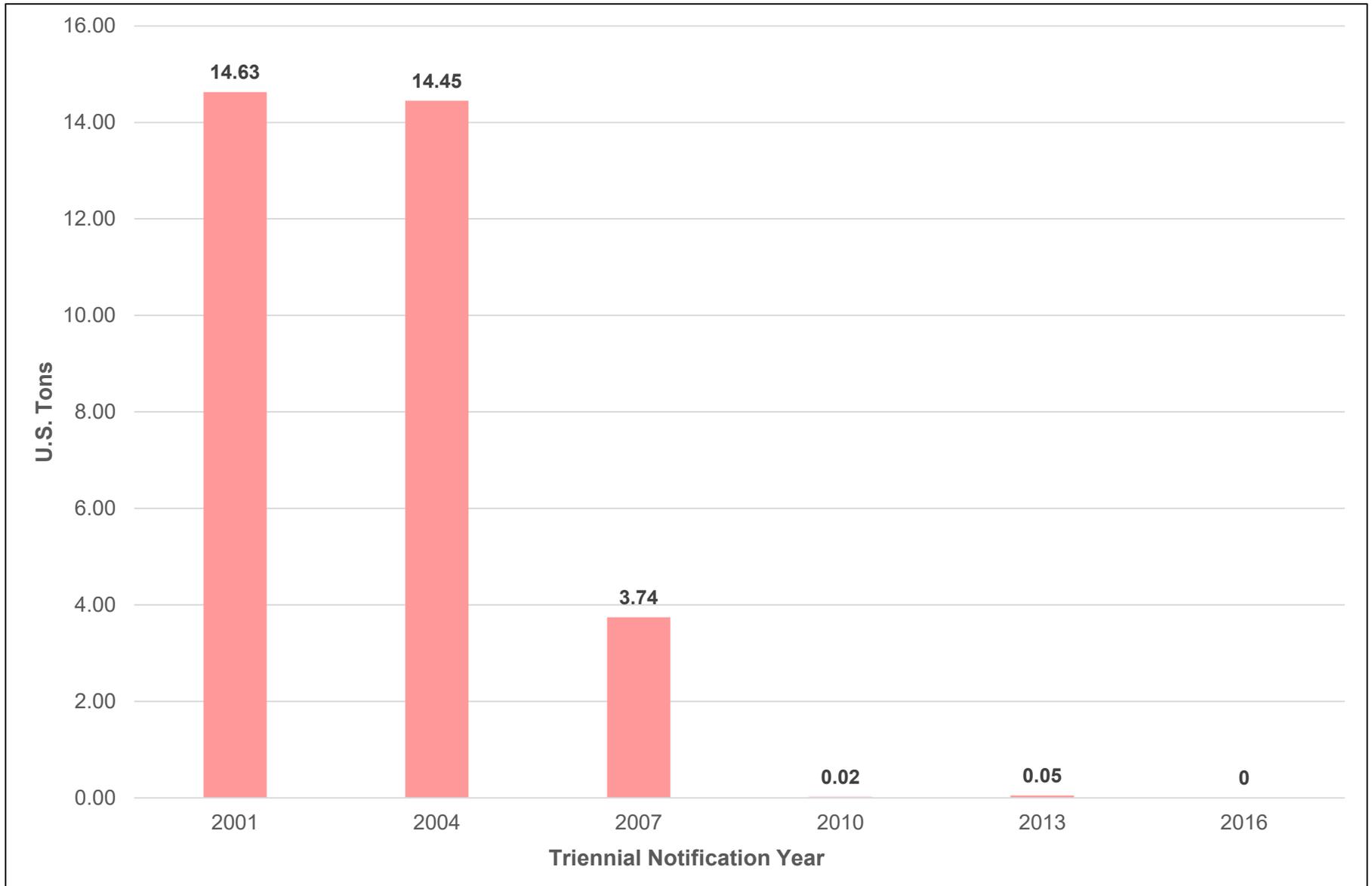


Misc. Products Observations

- Total decline of almost 48%
- 6 companies have confirmed mercury phase-out
- 20 companies included in the 2016 analysis
- Represents 85% reporting compliance for this category
- 3 companies have not yet reported for their 2016 notification, but they are included in the analysis & sales are assumed to be the same as in previous reporting years
- This is a “catch all” category – examples of products included:
 - Pressure transducers
 - Film
 - Electrodes / electrical connectors
 - Recoil reduction suppression for firearms
 - Mercury shock absorber for tennis elbow



Mercury-added Thermostats



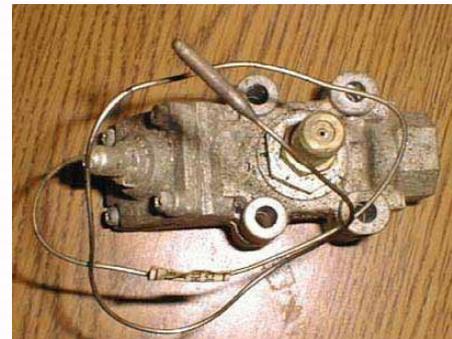
Mercury-added Thermostat Observations

- Total decline of 100% - this product category was completely phased-out as of 2015
- Represents 100% reporting compliance for this category
- 8 thermostat companies have consistently reported since 2001
 - As of 2015, the last manufacturer phased-out mercury use
 - Mercury-added thermostats are estimated to last approx. 30 years so many are still in use in homes & other properties in the U.S.
- 10 states ban/restrict sale of mercury-added thermostats: CT, LA, ME, MA, MI, MN, NH, NY, RI, VT



The Dilemma with Mercury-added Switches & Relays

- About 60 companies reported on mercury-added switches/relays at least once since 2001
- 33 companies have confirmed mercury phase-out; & therefore, at least 27 companies may be making these products
- Since 2010, all 8 “Notification” states ban the sale of mercury-added switches & relays & only companies that have been granted an exemption can notify
- For the 2016 reporting cycle, only 10 companies were granted an exemption & reported, which is a 37% reporting rate (if we assume 27 companies remain)



Data Caveats & Limitations

- May not represent the entire universe of the mercury-added products sold in the U.S. IMERC continuously receives new information from mercury-added product manufacturers.
- May overestimate the total amount of mercury sold in a product category. IMERC uses a conservative approach & assumes that the mercury total for non-reporters for 2016 is the same as its most recently reported year.



Data Caveats & Limitations

- Applies only to manufacturers & distributors of mercury-added products that are allowed to sell into one or more of the IMERC Notification States.
- Does not include products sold prior to January 1, 2001 or exported outside of the U.S., or products sold in-between triennial reporting years.
- Includes only mercury that is used in the product, & does not include mercury emitted during mining, manufacturing, or other points in the products' life cycle.



IMERC Supporting Membership

Eligibility:

- Manufacturers, distributors, & importers
- Trade associations
- Non-governmental associations (NGOs)

Benefits:

- Technical assistance
- Participation in conference calls & webinars
- Participation in discussions, peer reviews, & other educational opportunities
- Promotion of efforts to reduce mercury

www.newmoa.org/prevention/mercury/imerc/supportingmembers.cfm



Supporting Membership Dues

Category	Small (1-50 employees)	Medium (51-100 employees)	Large (>100 employees)
Manufacturer	\$500	\$750	\$1,000

Category	Small (1-5 members)	Medium (6-10 members)	Large (> 10 members)
Trade Assoc.	\$2,000	\$3,000	\$4,000

Category	Small (1-10 employees)	Large (> 10 employees)
NGOs	\$100	\$500

Contact Information

Rachel Smith

IMERC Coordinator

rsmith@newmoa.org

(617) 367-8558 ext. 304

Mercury-added Product Fact Sheets

www.newmoa.org/prevention/mercury/imerc/FactSheets

