

VIA EMAIL and US Mail

March 1st, 2016

Ms. Beverly Migliore
Rhode Island Department of Environmental Management
235 Promenade Street
Suite 425
Providence, RI 02908-5767

Subject: Thermostat Recycling Corporation's 2015 Annual Report

Dear Ms. Migliore:

Since 1998, TRC's national program has collected more than **2.1 million thermostats**, diverting more than **10 tons of mercury** from the waste stream. TRC continues to do more by increasing its budget, visiting more states (up 38% compared to 2014), and modernizing its work force.

You will find attached TRC's annual collection report for calendar year 2015. TRC would like to highlight some aspects of the 2015 program Rhode Island:

- The program collected **2,661 whole thermostats in 2014**. In 2015, the number of whole thermostats collected fell 17% to **2,212** thermostats collected. TRC achieved 94% of the performance requirement in 2015 after calculating equivalent thermostats.
- In 2015 the program **collected 16.72 pounds of mercury** in Rhode Island. Since 2007, the annual pounds of mercury collected has increased by an average of 91% per year. During the same time period, the pounds of mercury collected in the nation increased by 10% per year.
- TRC's website traffic continued to increase in 2015. There was an **88% increase of visitors** from Rhode Island while TRC increased its total annual visitors by **71% compared to 2014**.
- The county with the most bins returned in 2015 was **Providence (31 bins)**, followed by **Kent and Newport Counties (4 bins each)**. Two of the five counties in Rhode Island did not return any bins in 2015.

If the department would like to discuss any of these items in greater detail, please do not hesitate to contact me directly at 571-302-0877.

Sincerely yours,



Ryan L Kiscaden
Executive Director



an industry-funded non-profit

RHODE ISLAND ANNUAL REPORT

FY 2015

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RHODE ISLAND COLLECTIONS

In Rhode Island, TRC recovered 16.72 pounds of mercury from the equivalent of 2,338 mercury thermostats. A total of 2,212 whole mercury thermostats plus 2,697 mercury switches were recovered from Rhode Island collection locations in 2015 (mercury thermostats recovered from Rhode Island locations averaged 1.20 switches per thermostat in 2015).

Rhode Island established a performance requirement for manufacturers to collect 2,500 thermostats for 2015 by statute. TRC achieved 94% of the performance requirement in 2015.

TRC recovered approximately 58% of all thermostats from HVAC contractors and 42% from HVAC wholesale distributor collection locations.

EXHIBIT 1: 2015 RHODE ISLAND COLLECTIONS BY BRAND

Brand Holder	Thermostats	Count Switches	Pounds Mercury
Burnham Holdings	1	1	0.01
Carrier	47	50	0.31
Goodman Global	26	48	0.30
Honeywell	1884	2165	13.42
Invensys	3	4	0.02
ITT Corporation	2	3	0.02
Lennox	46	53	0.33
Lux Products	9	10	0.06
Nordyne Corporation	2	2	0.01
Rheem	10	10	0.06
Sears Holdings	6	6	0.04
Trane	17	34	0.21
Vaillant Corporation	4	4	0.02
White Rogers	149	153	0.95
York/Johnson Controls	3	6	0.04
----- Non-Member Brands -----			
SCOTT	2	2	0.01
Singer	1	1	0.01
----- NOM (Manufacturer not Identifiable) -----			
NOM's	0	0	0.00
Loose Bulbs	0	145	0.90
TOTAL	2,212	2,697	16.72

RHODE ISLAND COLLECTIONS

WASTE MERCURY-ADDED THERMOSTAT MANAGEMENT

Bins with waste mercury-switch thermostats are received at the fulfillment/processing center in Golden Valley, Minnesota. The facility is owned and operated by Honeywell International under contract with TRC.

Bins are received at the loading dock and sent to the TRC processing area. The bin and plastic liner are opened and the contents are identified, sorted, and tallied. The following data is recorded for each bin returned and processed: bin number, business name (location name), city, state, zip code, date returned, number of thermostats and mercury switches by manufacturer and any non-conforming material.

The bin is returned to the location that sent it in with a new prepaid address label within 72 hours of receipt. The thermostats are stored and staged in a plastic lined carton in a storage area for final processing. The containers are dated and processed in order received, first in-first out.

The containers are returned from the storage area to the TRC processing area to have the mercury bulbs removed from the plastic housing. Universal Waste Regulations require the disposal of waste within 12 months of generation. TRC's processor requires that the disposal occur within 6 months of generation and TRC follows the more stringent requirement. Small quantities of thermostats are removed from the container, which is then closed again, and placed at the bulb removal workstation on a tray that contains any potential mercury spillage. The bulbs are removed from the thermostats and placed into a 2 quart container at the work station. If a bulb breaks and the mercury spills, the work area is designed to contain the spillage and the operators are trained in the clean-up and disposal of mercury. The TRC processing area is equipped with special mercury vacuum cleaners and the work area is vacuumed at the end of the work day to assure that any spillage is cleaned up and not left to evaporate.

The 2 quart container is emptied into a special 55 gallon drum which is labeled and dated according to regulations. The drum is sealed with a band and is only opened when contents are

RHODE ISLAND COLLECTIONS

being added to it. Special negative pressure venting assures any fumes are drawn away and vented when the drum is opened.

The 55 gallon drum is then shipped to Veolia Environmental Services in Port Washington, Wisconsin for final processing of the mercury ampoules (switches) Veolia Environmental Services meets or exceeds all local, state, federal and EPA regulations for the management of the product. Veolia's approvals for mercury recovery/recycling include:

- EPA - identification WIR000130591 (Veolia Environmental Services, Inc.)
- EPA BDAT Requirement - satisfied by all recovery operations
- CERCLA (Comprehensive Environmental Response Compensation and Liability Act)
- Wisconsin Department of Natural Resources

All facilities processing thermostats shipped to TRC follow all EPA guidelines and regulations. TRC has a facility license from Hennepin County Minnesota for the operation of the TRC. Honeywell, Inc. has a Hazardous Waste Generator license from Hennepin County. All persons who handle mercury thermostats as part of the TRC operation receive training in the handling of Hazardous Waste and Universal Waste.

PROGRAM EDUCATION AND OUTREACH

DIRECT MAIL

TRC utilized direct mail throughout the year to target collection locations, HVAC contractors/technicians, and household hazardous waste (HHW) facilities.

TRC Collection Locations & Wholesale Distributors

- To encourage collection point participation and to stimulate the timely return of TRC collection containers, TRC mailed reminder postcards (Exhibit 2) to collection points that had not returned a TRC container within the last 12 months (in accordance with Rhode Island Universal Waste Regulations). TRC mailed 20 reminders in March, 16 in July, and 15 in November.
- On 6/17 TRC mailed a letter to three Heating, Air-conditioning & Refrigeration Distributors International (HARDI) member CEOs with headquarters in Rhode Island. The letter encouraged them to conduct an original equipment manufacturer (OEM) Mercury thermostat cleanout at their branches, and included a sample memo for HARDI CEOs to distribute to their collection locations. (Appendix 1)
- On 10/28 TRC sent sales letters to two Winsupply wholesale locations without TRC bins in the state of Rhode Island. The letter was sent to remind these branches of their lawful obligation to provide a mercury thermostat recycling option to customers and offered free bins to help them meet this obligation. (Appendix 2)

EXHIBIT 2: REMINDER POSTCARD

Side 1:



Side 2:



PROGRAM EDUCATION AND OUTREACH

HVAC Contractors/Technicians

TRC purchased all HVAC contractor lists from Hoover's, narrowing the results by SIC codes relating to the HVAC industry.

- TRC mailed an 11x6 sized postcard to 48 HVAC contracting business contacts with seven or more employees in September and November (Exhibit 3). The messaging targeted on an emotional appeal to fathers, since the industry is predominantly male, coming from their children in an appeal to "Get with the program." The postcard also offered a limited-time free recycling bin.
- In October TRC mailed an 18x24 sized full-color, double-sided poster (Exhibit 4) to 180 HVAC contracting business contacts with less than seven employees. The mailing included a letter (Appendix 3) encouraging them to display the poster and informing them of TRC's program. It also offered a limited-time free bin.
- In December TRC mailed a full color letter to 169 HVAC contracting business contacts with less than eight employees. (Appendix 4)
- In December TRC mailed a holiday cards to 40 HVAC contractors with 10 or more employees. The card was holiday themed and offered the gift of a free mercury thermostat recycling bin. (Exhibit 5)

PROGRAM EDUCATION AND OUTREACH

EXHIBIT 3: 11X6 POSTCARD

Side 1:



Side 2:

Thermostat Recycling Corporation (TRC) offers an easy program to help your business comply with New York law.

State law requires HVAC contractors to recycle all mercury thermostats removed service. You can't leave them at the customer's premise.

If your business has **7 OR MORE TECHNICIANS**, order a **FREE** recycling container.

CALL TRC TOLL-FREE AT: 888-266-0550

ORDER ONLINE AT: www.thermostat-recycle.org/contractor

PROMO CODE: POSTCARD

Otherwise, bring them to any HVAC wholesaler in the state for free recycling.

LEARN MORE AT: www.thermostat-recycle.org

Thermostat Recycling CORPORATION

Thermostat Recycling Corporation
PO Box 25586
Alexandria, VA 22313

PROGRAM EDUCATION AND OUTREACH

EXHIBIT 4: 18X24 POSTER

Side 1:



Side 2:



EXHIBIT 5: HOLIDAY CARD TO CONTRACTORS

Outside (front and back of folded card):



Inside:



PROGRAM EDUCATION AND OUTREACH

ADVERTISING

TRC's two primary advertising targets remain HVAC contractors/technicians and HVAC wholesale distributors. For the contractors/technicians segment, TRC focuses on residential and light commercial contractors because of their relatively high level of hands-on contact with waste mercury thermostats. The second segment of focus is HVAC wholesale distributor locations as they remain the most convenient location for the majority of Rhode Island-based technicians/contractors to purchase replacement thermostats and recycle waste mercury thermostats.

Homeowners remain a secondary market as they represent a small segment of the market (+/- 10%). Since replacing a mercury thermostat is a rare event (if ever) for a consumer, TRC derives the greatest impact/value from its marketing activities by concentrating on the channel segment that conducts the vast majority of repeat thermostat replacements.

TRC's 2015 advertising campaign continued to focus mostly on "easy and free" and "It's the law" messaging (where applicable, as only a limited number of states ban the disposal of mercury thermostats in solid waste and/or require HVAC contractors to recycle all mercury thermostats removed from service).

The purpose of TRC's advertisements were two-fold: 1) continue to build brand/program awareness and 2) increase program participation by raising awareness of specific legal obligations to recycle and the ease of recycling.

Print Advertising

TRC continued print-based advertisements in the following national/regional HVAC trade publications:

- ***HVAC Insider New England***, a regional publication which has a monthly circulation of 9,000 contractors, technicians, and wholesale distributors in New England, including

PROGRAM EDUCATION AND OUTREACH

Rhode Island. TRC ran a 2-color 1/2 page advertisement in the May, June, November and December issues (Exhibit 6).

- **Johnstone Supply Flyer**, a printed version of their online catalogue that is mailed to more than 300,000 HVAC contractors nationwide. The flyer featured a full page TRC advertisement in their August issue to promote the TRC TV giveaway promotion (Exhibit 7). Johnstone Supply has one location in Providence. Johnstone Supply provided this insertion at no-cost to TRC.
- **Distribution Center Magazine**, the exclusive publication of HARDI, with more than 11,000 bi-monthly subscribers. TRC ran a full-color 1/4 page advertisement in May and December promoting the Big Man on Planet competition. (Exhibit 8)
- **HVACR Business Magazine**, a national publication with approximately 34,000 qualified subscribers, of which approximately 1,544 are in New England. TRC ran a full color 1/4 page advertisement in January, March and July. (Exhibit 9)

EXHIBIT 6: HVAC INSIDER NEW ENGLAND AD

Thermostat Recycling CORPORATION
an industry-funded non-profit

Are you recycling every mercury thermostat you remove from service?

If not, you're breaking the law.

State law* requires contractors and technicians to recycle every mercury thermostat they remove from service, and all HVAC wholesalers in the state must take mercury thermostats off your hands at no cost.

To find your nearest collection location visit thermostat-recycle.org, or call **888.266.0550** for more information.

*Disposal bans apply in the following states: CA, CT, IA, IL, ME, MA, MN, NY, NH, OR, PA, RI and VT.

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EXHIBIT 7: JOHNSTONE SUPPLY FLYER AD



EXHIBIT 8: DISTRIBUTION CENTER MAGAZINE ADS

May:



December:



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EXHIBIT 9: HVACR BUSINESS MAGAZINE AD



Digital Advertising

TRC continued the use of rotating banner advertisements in 2015, with changes in scheduling and scope and the addition of new outlets.

TRC follows the national trend of analyzing advertisement success by measuring each advertisement's impression and click-through rate. An impression is a measure of the number of times an ad is displayed, and a click-through rate (CTR) is the number of times a click is made on the advertisement divided by the total impressions.

TRC's new advertising in 2015 included:

- *ACHR News' AHR Wrap Up Enewsletter*, sent to 12,000 opt-in subscribers. This is an annual email sent in January at the conclusion of the Air-Conditioning, Heating, Refrigerating (AHR) Exposition, the largest HVAC industry trade show. TRC ran a Medium Rectangle ad within the email that received a 0.72% CTR. (Exhibit 10)

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- *Distribution Center's* Enewsletter, sent to 4,000 weekly opt-in subscribers. TRC ran a Medium Rectangle ad in February, March and June receiving an average CTR of 2.5%. (Exhibit 10)
- NATE Enewsletter, sent bi-monthly to 31,900 opt-in subscribers. TRC ran a text ad that received a 0.14% CTR.

EXHIBIT 10: ACHR NEWS AND DISTRIBUTION CENTER ENEWSLETTER AD



TRC also continued digital advertisements on the following HVAC industry websites below:

- OESP Dedicated Eblast, a digital piece emailed to oil and energy service professionals predominantly from New York, Connecticut, Maine, Maryland, Massachusetts, New Hampshire, New Jersey, Pennsylvania, Rhode Island, Vermont and Virginia. The email was exclusively about TRC's program and offered a limited-time offer to sign-up for a free TRC bin. The email was delivered to 1,674 subscribers in April, receiving a 3.6% CTR; and to 1,623 subscribers in September, receiving a 1.4% CTR. (Appendix 5).
- OESP Advantage News Brief, a weekly email with the same subscribers listed as above (OESP Dedicated Eblast). TRC ran a sponsored content ad for 13 consecutive weeks October – December which resulted in an average CTR of 0.2%. (Exhibit 11)
- HVACR Business "Ahead of the Curve" Enewsletter, a monthly newsletter that reaches approximately 9,000 opt-in readers each month. TRC ran a banner ad in July, August, November and December (Exhibit 12). The average CTR was 3.0%.

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- HVACRBusiness.com, an HVAC publication website with 14,000 monthly visitors. TRC ran a banner ad in February and July that resulted in 92,848 impressions and an average CTR of 0.9%. (Exhibit 13)
- Contracting Business Magazine's dedicated Email Blast, which was sent twice with different messaging to opt-in subscribers in states with disposal bans, including Rhode Island. The January mailing was sent to 5,980 subscribers and received a 25% open rate and a 0.5% CTR (Appendix 6), while the June mailing was sent to 8,970 subscribers and received a 13% open rate and a 0.5% CTR (Appendix 7).
- ACHRNews.com, a website that assists the decision-makers from all branches of the HVAC industry including contractors, manufacturers, distributors, parts and supply wholesalers, and service companies. More than 241,852 HVACR professionals visit the website every month, totaling more than 308,911 monthly website visits. TRC ran a Topic Sponsorship ad in January, February and September that resulted in an average 0.14% CTR. (Exhibit 14)
- ACHR Newsletter, a weekly email blast with more than 10,000 subscribers. TRC ran a banner ad for four issues in April and four issues in October with an average CTR of 4.7%. (Exhibit 14)
- HVAC-Talk.com, an online forum that averages more than 300,000 monthly visitors. TRC ran a banner ad in February, March and July which resulted in 291,706 total impressions and an average CTR of .03%. (Exhibit 13)

EXHIBIT 11: OESP ADVANTAGE NEWS BRIEF SPONSORED CONTENT AD

SPONSORED CONTENT

Promoted by

- [Thermostat Recycling Corporation makes disposal of mercury thermostats easy and free.](#)
- [Several states prohibit the disposal of mercury thermostats in the trash.](#)
- [Find your nearest mercury thermostat collection site for free disposal.](#)
- [Sign up for Thermostat Recycling Corporation's program to directly participate as a collection site.](#)
- [Learn more about how Thermostat Recycling Corporation's program works.](#)



PROGRAM EDUCATION AND OUTREACH

EXHIBIT 12: HVACR BUSINESS "AHEAD OF THE CURVE" ENEWSLETTER AD



EXHIBIT 13: HVACRBUSINESS.COM AND HVACT-TALK.COM AD

Would you toss
1,000 CFL bulbs
into the trash?



Then why would
you toss a
mercury
thermostat in
the trash?

Find out how
easy TRC makes
it to recycle.



 Thermostat Recycling
CORPORATION

The advertisement is a vertical graphic with a blue background. It features two illustrations: a grey trash can overflowing with CFL bulbs and a green recycling bin filled with mercury thermostats. The text is white and poses a rhetorical question about tossing CFL bulbs, then asks why one would toss a mercury thermostat in the trash, and finally promotes TRC's recycling service.

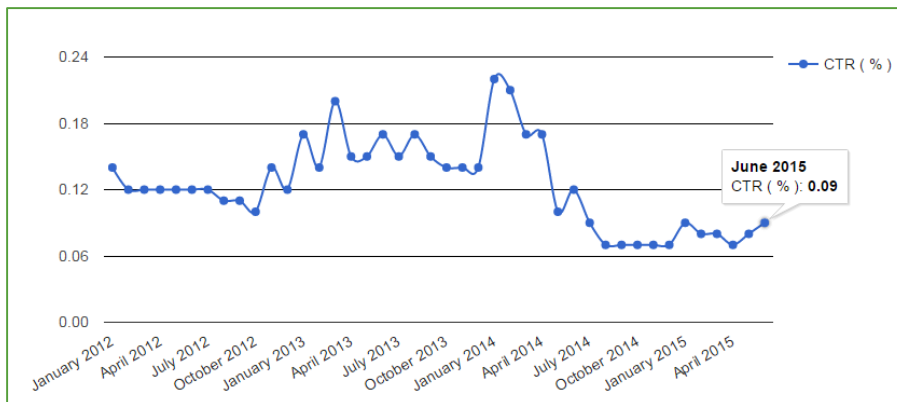
PROGRAM EDUCATION AND OUTREACH

EXHIBIT 14: ACHRNEWS.COM TOPIC SPONSORSHIP ADS



Exhibit 15 presents benchmark data from Google's Display Benchmarks tool on average digital advertising CTR's in the U.S. by year. It shows that the highest national average CTR in 2015 was 0.09%, so TRC's CTR performance exceeded the national average.

EXHIBIT 15: GOOGLE DISPLAY'S BENCHMARK TOOL



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Additionally, the current average open rate for emails is 14%, and the average CTR in emails is 1.6%¹, which TRC generally also exceeds.

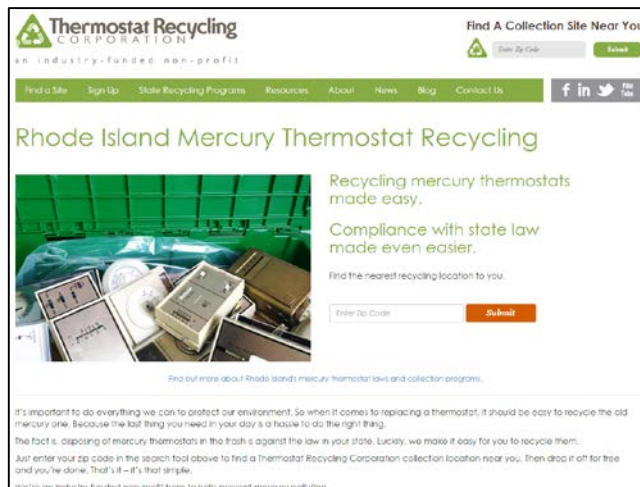
Google AdWords

Since 2011 TRC has deployed a Google AdWord campaign that geo-targets contractors/technicians and consumers (homeowners) in states with mercury thermostat disposal bans, including Rhode Island (Exhibit 16). Advertisements appear on Google search results pages after an individual searches terms related to TRC's mission (E.g. thermostat replacement, contracting recycling regulations, mercury thermostat recycling, programmable thermostats, etc.).

TRC continued this campaign in 2015, running it the duration of the calendar year. This is TRC's preferred option to reach consumers because of the campaign's extensive and targeted reach.

The Rhode Island campaign yielded 235,805 impressions with an average CTR of 0.5%.

EXHIBIT 16: GOOGLE ADWORDS LANDING PAGE



¹ "M+R Benchmarks 2015." *M+R and NTEN's 2015 Nonprofit Benchmarks Report*. 1 May 2015: 57. Print.

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EARNED MEDIA

In 2015 TRC continued to enjoy positive and frequent coverage within the industry trade press, appearing more than 20 times through a variety of publications. TRC issued many media releases that were published, generating additional exposure for the program.

Notably, TRC continued to receive coverage and editorial pieces in industry leading publications such as:

- The Air Conditioning and Refrigeration (ACHR) News (370,378 reach), including a front page editorial article (Exhibit 17)
- Distribution Center (11,000 circulation)
- Contracting Business (40,000 circulation)
- Johnstone Supply's on-hold phone messaging and their printed flyer (300,000 circulation)
- HVAC-Talk.com (408,769 monthly unique browsers)
- Wholesale distributor's on-hold phone messaging, including Johnstone Supply and Standard Supply
- Johnstone Supply's printed flyer (300,000 circulation)

Additionally, two of TRC's employees, Ryan Kiscaden and Christyn Zehnder, were voted onto HARDI's first 40 under 40 list. The list recognizes the HVAC industry's top performers and rising stars who are younger than 40. The list will be published in the spring of 2016 in Distribution Center Magazine. There were hundreds of eligible HARDI members considered, making this a highly competitive group.

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EXHIBIT 17: ACHR NEWS FRONT PAGE EDITORIAL ARTICLE

Air Conditioning | Heating | Refrigeration

the NEWS

THE HVACR CONTRACTOR'S WEEKLY NEWSMAGAZINE SINCE 1926

AUGUST 31, 2015 | \$5.00 | ONLINE AT WWW.ACHRNEWS.COM | [f](#) [t](#) [v](#) [i](#) [s](#)

A **bnr** PUBLICATION

FOCUS

01 RENEWABLE ENERGY SOLUTIONS



Teaching Greenhorn Techs Green Technologies

Contractors gain a competitive edge through renewable training and education

BY NICK KOSTORA
THE NEWS STAFF

The renewable energy sector of the HVAC marketplace continues to make strides in acceptance and understanding from consumers, and the proof is in the numbers.

Per WaterFurnace Intl. Inc., more than 1 million geothermal (or ground-source) heat pumps are used in U.S. residential, commercial, and government buildings. And, that number is growing as U.S. homeowners install approximately 50,000 more geothermal heat pumps annually. Similarly, both wind and solar installations have risen steadily over the last decade, with solar accounting for 32 percent of the nation's new generating capacity in 2014, besting the efforts of both wind energy and coal for the second consecutive year, per Scientific American.

■ See **TEACHING GREEN** | Page 14



PEOPLE OF THE SUN: As renewable energy installations continue to grow in popularity, HVAC contractors are discovering multiple ways to equip their teams with the knowledge necessary to capitalize. PHOTO COURTESY OF WAYNE NATIONAL FOREST, <http://NHL.gov/forecweek>

FYI HVAC BRIEFS

RESIDENTIAL CONTRACTORS
Jupiter-Tequesta Air Conditioning, Plumbing & Electric Inc. (Jupiter, Florida) named **Greg Angell** a/c operations manager.
Conditioned Air Corp. of Naples (Naples, Florida) has gained an equity position through **Gemini Investors** (Boston).

COMMERCIAL CONTRACTORS
Mueller Associates Inc. (Baltimore) named **Steve Gillis** vice president.
Wiegmann Associates Inc. (St. Louis) named **Nicholas Andell** project manager. He is responsible for managing new and renovation HVAC projects.

MANUFACTURERS
Malco Products Inc. (Annandale, Minnesota) named **Timothy Peterson** sales leader for HVAC markets in the U.S. and Canada.

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Industry Unites Against Mercury Pollution

Strategic partnerships, contests boost mercury thermostat collection numbers

BY NICOLE KRANCKE
THE NEWS STAFF

Unlike in past decades, the dangers of mercury exposure are well known today. According to the Natural Resources Defense Council, mercury is used as a component in many consumer products, like thermometers, batteries, and electronic

devices, and can escape as a pollutant when these products are manufactured, broken during use, or, perhaps most importantly, incorrectly handled and disposed of at the end of the product's useful life. Mercury pollution becomes a serious threat when it settles into oceans and waterways, where it builds up in fish before it's often consumed by people. When mercury enters

the human body it acts as a neurotoxin, harming the brain and nervous system. Mercury poisoning has been known to cause memory loss, tremors, and vision loss, and it can adversely affect fertility and blood pressure.

Since 1998, the Thermostat Recycling Corp. (TRC) has worked to collect thermostats containing mercury and properly

dispose of the harmful substance by using HVAC wholesalers as collection points for contractors. "It's a simple reverse distribution system," said Mark Tibbets, executive director, TRC. "Contractors are bringing products back to distributors."

TRC's 2014 Mercury Recovery Index (MRI) report showed a 13 percent increase

■ See **MERCURY** | Page 9

ADVERTISEMENT

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Changing Seasons:
How IAQ Promotes
Better Business



SEPTEMBER 10 • 1 PM EST

Register for FREE at webinars.achrnews.com.

TRC WEBSITE

TRC's website data is calculated through Google Analytics, and website traffic continued to increase in 2015. TRC increased its total annual visitors by 71% compared to 2014. There was an

PROGRAM EDUCATION AND OUTREACH

88% increase of visitors from Rhode Island and the state ranked 17th among the country in terms of its share of visitors to TRC's website. The increase in traffic reflects the impact of paid trade channel advertising, the Google AdWord campaign, and search engine optimization efforts.

In May TRC implemented an automated welcome email for collection sites that sign-up for the program through TRC's website. In November TRC transitioned its current website into a responsive website, meaning it is fully optimized for greater visibility across all devices including mobile and tablets.

TRC's social media presence increased as well. The TRC Twitter account saw a 42% increase in number of followers in 2015, and its Facebook page enjoyed an 83% increase of page "Likes."

TRADE SHOWS, CONFERENCES AND PRESENTATIONS

TRC staff attended, exhibited and/or presented at the following regional and national shows pertaining to Rhode Island:

- **January 13th: Honeywell International Webinar (NEW)**

Ryan Kiscaden presented a TRC Webinar to Honeywell International to an audience of 15 contractors. The webinar focused on ways for contractors to profit from recycling by using other industry items to increase their profitability.

- **January 25th – 28th: Air-Conditioning, Heating, Refrigerating Exposition.**

Chicago, IL

TRC staff attended and exhibited at the AHRI (Air-Conditioning, Heating, and Refrigeration Institute) Expo in Chicago. The show brought in over 2,000 exhibitors and 60,000 HVAC/R professionals, including more than 1,171 in the New England region.

- **February 9th – 13th: Association of Energy Service Professionals (AESP) Trade Show**

Orlando, FL

AESP is the premier organization for professionals in the energy efficiency industry. Over 300 industry professionals attend the event including utility professionals and industry advisors/implementers. TRC staff attended this show.

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- **February 12th: Product Stewardship Institute Webinar (NEW!)**

TRC staff presented a webinar through the Product Stewardship Institute entitled “Connecting Rural HHW Program Managers to Manufacturer-Funded Take-Back Programs” to an audience of 25 professionals.

- **February 26th: AESP Brown Bag Webinar (NEW!)**

TRC staff presented a Brown Bag Webinar to AESP on recycling programs for utilities and utility implementers. The webinar was added to TRC’s YouTube page in April and received 33 views.

- **March 3rd-4th: Johnstone Supply Member Meeting**

San Diego, CA

Johnstone Supply is a cooperative wholesaler distributor of HVAC parts and equipment with over 380 locations nationwide, including one in Rhode Island. Johnstone’s Annual Membership meeting is invitation only and TRC once again attended and exhibited as part of an ongoing effort with Johnstone to encourage and expand the cooperative’s members’ participation. The event is well attended by owners and senior staff and remains a unique opportunity to engage directly with key decision makers.

- **March 15th – 18th: ACCA and the IE3: Indoor Environment & Energy Expo**

Dallas, TX

Co-presented by Air Conditioning Contractors of America (ACCA), this expo is the largest marketplace for the indoor environmental and energy services contracting industry. TRC staff exhibited and promoted the program to attending HVAC contractors.

- **March 27th: YouTube Video Presentation (NEW!)**

TRC created and uploaded a video presentation entitled “Mercury Thermostats: A Historical Overview and Review of Current Legislation” to TRC’s YouTube channel. The video received 39 views in 2015.

- **March 25th: ACCA Town Hall Webinar (NEW!)**

A Town Hall Webinar was presented to ACCA members regarding the TRC Program.

PROGRAM EDUCATION AND OUTREACH

- **April 12th-14th: HARDI FOCUS Marketing & Sales Conference (NEW!)**

Charleston, SC

TRC staff attended this conference where marketing and sales professionals learn from joint sessions that help them align their strategies and improve synergy between departments.

- **May 18th – 20th OESP Road Show**

Hershey, PA

An annual convention with over 2,500 attendees representing close to 300 companies across New England. TRC staff again exhibited at this show.

- **May 28th: ACCA Webinar with Dynatemp (NEW!)**

TRC teamed up with Dynatemp, a refrigerant manufacturer and recycler, to present a Webinar on environmental compliance to the ACCA.

- **September 14th – 16th: NAHMMA National Conference**

Austin, TX

TRC staff attended the conference and sponsored the silent auction. The conference facilitated peer-group interaction and exchange of ideas and information relating to hazardous materials management. TRC staff gave a presentation on techniques for marketing to target audiences, which was attended by more than 30 HHW professionals.

- **October 6th: EEBA Excellence in Building Conference & Expo (NEW!)**

Denver, CO

After joining the association and speaking with their Executive Director, TRC staff attended the show for the first time. The conference focused on ways for both residential/commercial HVAC contractors and home performance contractors to work together.

- **October 7th: IFMA World Workplace Conference & Expo**

Denver, CO

Held annually, IFMA's World Workplace meets the educational and networking needs of professionals who support the built environment. IFMA promotes World Workplace year-

PROGRAM EDUCATION AND OUTREACH

round to more than 23,000 members in 85 countries; plus an additional 200,000 workplace professionals. TRC staff attended for the first time.

- **December 5th – 8th: HARDI National Conference**

Orlando, FL

TRC staff again exhibited and participated in the “Booth Program,” which provides for 1-on-1 sessions with senior executive staff from HARDI member companies. This event targeted representatives of approximately 80% of the wholesale market for HVACR products. TRC also presented its annual “Big Man on the Planet Award.”

HVAC WHOLESALE DISTRIBUTOR OUTREACH

Ferguson Enterprises Onboarding

Ferguson Enterprises is the number one wholesaler in the country, owning more than 200 HVAC locations nationwide. Ferguson made a business decision to engage both HVAC and blended Ferguson stores regardless of state mandatory programs. As a result of this initiative Ferguson signed up 90 Ferguson Enterprise stores for the program, three of its Lyon Conklin Co. stores, and two of its Air Cold Supply stores. In addition, Ferguson purchased a current HVAC distributor whom uses the TRC program, Redlon and Johnson.

Ferguson sent an email in July to 15,910 subscribers announcing its partnership with TRC and highlighting the program (Exhibit 18).

Due to these efforts, collections from Ferguson owned distributors increased 37% percent in 2015.

PROGRAM EDUCATION AND OUTREACH

EXHIBIT 18: FERGUSON NATIONAL EMAIL



Promotions

TRC implemented several promotions to help incent and influence recycling behavior among HVAC contractors at wholesale distributor locations throughout the state.

Petro Oil

TRC engaged with the Northeast's largest heating oil provider to offer an incentive campaign in 2015. Petro has offices in NJ, NY, CT, RI, and MA. The incentive program was available for up to \$5,000 of incentive categories focused on increasing overall bin shipments, number of mercury thermostats returned, and participation rates from its offices. Petro Oil collected 118 mercury thermostats out of a goal of 1,000, so no incentive was administered.

PROGRAM EDUCATION AND OUTREACH

Johnstone Supply

In September, Johnstone Supply launched a 40 inch TV giveaway at 383 of their stores nationwide, including one in Rhode Island. Each mercury thermostat recycled earned entry into the giveaway. The promotion was in partnership with Honeywell; a customer could earn additional entries by purchasing any new Honeywell thermostat. During the promotion, Johnstone Supply incorporated the TV giveaway promotion into their recorded messaging for customers calling who are put on hold. The message was 45 seconds long and was in rotation with several other messages.

TRC provided Johnstone Supply full color 18x24 posters and a new cardboard header (Exhibit 19) for the TRC merchandise display to promote awareness of the program in stores. A 4x6 sized postcard (Exhibit 20) was then sent to all Johnstone locations on 10/15 as a reminder to send in their bins after the TV promotion ended.

R.E. Michel

In October 2014 TRC launched a gift card promotion at select New England R.E. Michel locations, including the branch location in Providence. The promotion offers customers a \$5 Dunkin' Donuts gift card for every five mercury thermostats returned. TRC provided each participating location gift cards and full-color counter cards to promote the program (Exhibit 21). The promotion is ongoing as of March 2016 and will continue until all cards are distributed.

PROGRAM EDUCATION AND OUTREACH

EXHIBIT 19: JOHNSTONE SUPPLY TV GIVEAWAY POSTER AND MERCHANDISE HEADER



EXHIBIT 20: JOHNSTONE SUPPLY POSTCARD

Front Side:



Back Side:



PROGRAM EDUCATION AND OUTREACH

EXHIBIT 21: DUNKIN DONUTS PROMOTION



Big Man on Planet Competition

TRC partnered with HARDI for the fourth annual Big Man on Planet (BMOP) competition. The competition was restructured to allow for four distributor winners (as opposed to three in 2014) and included a \$500-\$1,000 employee incentive to the top four branch locations within each tier. The restructuring was implemented to provide a more fair tiered system, putting distributors with a similar number of branch locations in competition with one another. In April TRC mailed an invitation to the executives of 357 HARDI member principle contacts encouraging their participation in the program (Exhibit 22). The competition ran May 1st – October 31st and participating locations shipped a total of 432lbs of mercury during the competition.

PROGRAM EDUCATION AND OUTREACH

EXHIBIT 22: BMOP INVITATION TO HARDI MEMBERS

Outside:



Inside:

Sign Up to Compete:

1. Confirm all your branch locations have a TRC container and are collecting mercury thermostats through TRC's program. If not, contact TRC at 888-266-0550 to enroll in the program and mention "BMOP" for a limited-time free recycling container.
2. Sign up for the Big Man on Planet (BMOP) competition by May 31st at www.thermostat-recycle.org/bmop.
3. Market your BMOP participation to customers by using free promotional materials emailed to you after signing up.

Winners will be determined by total pounds of mercury recovered from thermostats received by TRC between 5/1/15 - 10/31/15.



Why Compete?

BMOP is a competition for HARDI members to see which distributor can recycle the most mercury thermostats. So, why participate?

- Show customers your commitment to the environment by offering them a simple recycling solution.
- Go head-to-head with fellow distributors – don't give your customers a reason to recycle at your competitor.
- Earn bragging rights and the "BMOP Cup" at the 2015 HARDI Annual Conference where 4 winning distributors will be recognized.

\$500 Store Incentives Available!

Visit www.thermostat-recycle.org/bmop for more details.

Location calls

TRC staff made eight phone calls to collection locations in Rhode Island that hadn't returned a bin in more than 12 months. Calls reminded locations of the need to stay in compliance with accumulation time limits. TRC staff also offered to replace lost shipping labels, order FedEx Ground pickups for the bins, or provide free promotional materials. See Appendix 8 for a list of locations contacted.

Site Visits

A total of 22 Rhode Island collection locations were visited by TRC staff in several key markets. The majority of locations visited were those that had not returned a bin within the past 12 months. Visits were conducted to ensure location staff was knowledgeable about the program, prepare the bin and schedule a shipment if applicable, and supply any other necessary materials. See Appendix 9 for a complete list of locations visited.

PROGRAM EDUCATION AND OUTREACH

Merchandise Displays for TRC Bins

In 2014 TRC developed branded merchandise displays for its recycling containers. The purpose of the displays is to enhance the visibility and accessibility of the program to contractors at HVAC wholesale locations. Throughout the year TRC distributed free branded cardboard displays to HVAC wholesale distributor collection locations in Rhode Island to showcase the TRC container (Exhibit 25).

In 2014 when TRC last ran data, the five largest HVAC wholesalers using the TRC merchandise display (Johnstone Supply, R.E. Michel, CC Dickson, Gustave Larson, and US Air Conditioning Distributors) collectively had seen a 25% increase in pounds of mercury recovered and a 45% increase in frequency of TRC bin returns year-to-date. Therefore, TRC plans to continue providing and encouraging the use of merchandise displays at HVAC wholesalers to help increase thermostat collections.

EXHIBIT 23: TRC BRANDED CARDBOARD DISPLAY



PROGRAM EDUCATION AND OUTREACH

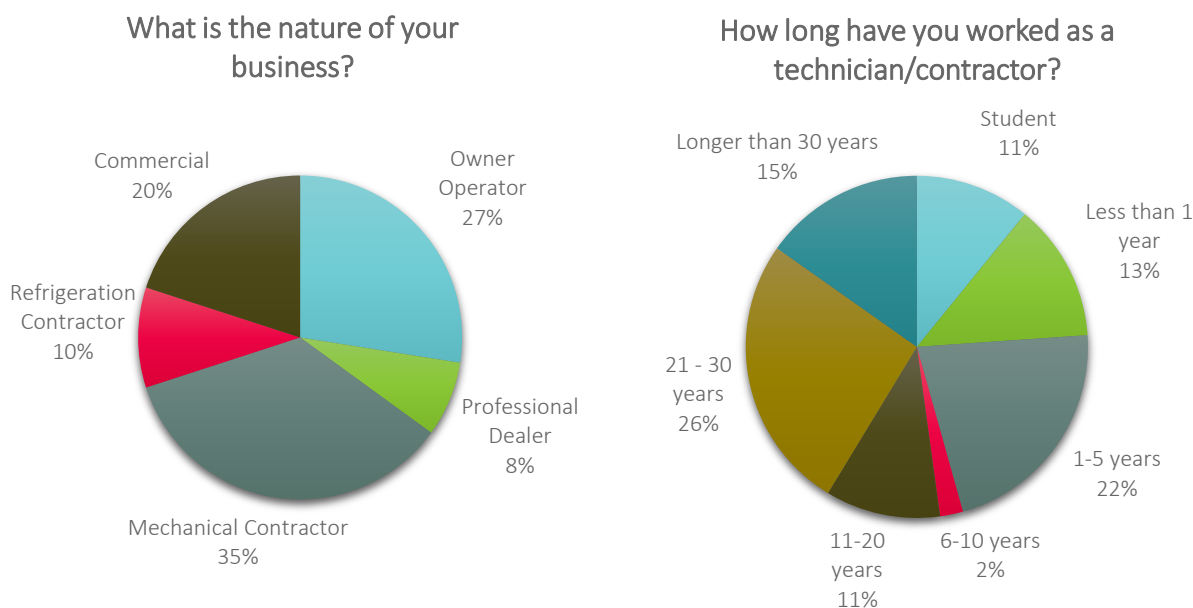
HVAC TECHNICIAN SURVEY

TRC hired a third-party to create a contractor behavior survey to collect first-hand accounts about recycling practices and compliance patterns of technicians as well as company level acceptance/resistance to compliance. The technician survey was conducted in-person by TRC staff and administered via touch screen devices at several HVAC trade shows nationwide, including the Torrco Annual trade show in Connecticut and the GasNetworks show in Massachusetts. The surveys were initiated by asking contractors to take a brief five minute survey regarding recycling behavior for a chance to win a Bosch Tool.

If a technician indicated interest in participating they were handed the survey in the form of a touch-screen tablet which had the survey questions already displayed for convenience. Survey participation was incentivized by entry into a prize raffle for a Bosch tool give-away. The survey had 46 respondents, and while it included contractors from several states, generally contractor behavior tends to be similar nationwide.

Demographic

The first questions asked of the technicians were to determine their demographic:



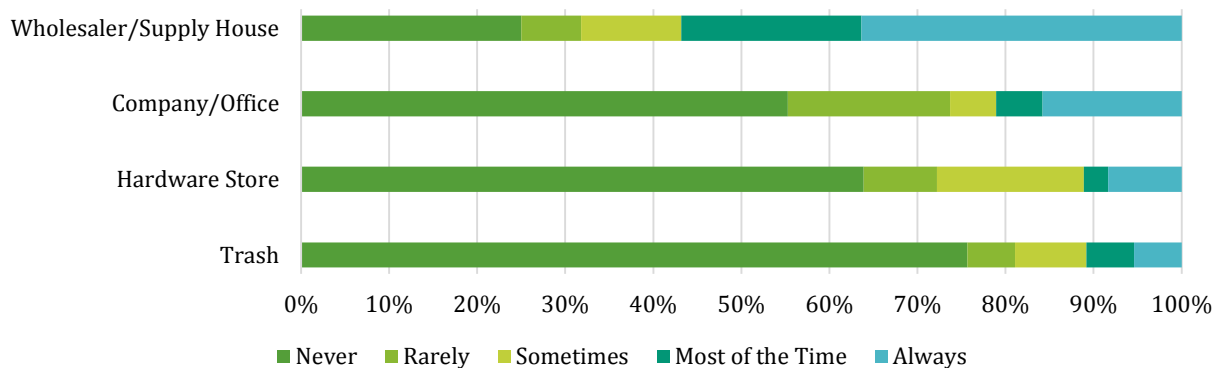
PROGRAM EDUCATION AND OUTREACH

The demographic data shows that there was a widely varied mix of business sectors and experience levels. This means that the findings from the survey can be applied generally without a need for demographic qualifiers. The largest business sector was Mechanical Contractor followed by Owner Operator. These two sectors comprised 62% of the responding technicians. The experience range of the respondents was diverse, reflecting a balance of both new and experienced technicians.

Disposal

To better understand where technicians dispose of mercury thermostats the following question was posed:

Where do you dispose of the mercury containing thermostats you collect?

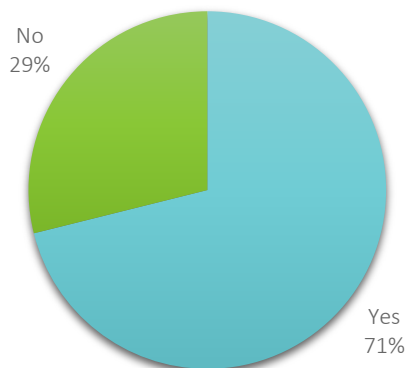


The above chart shows that the main location for the disposal of mercury containing thermostats is at the wholesaler. It also points out that roughly 25% of technicians do at least occasionally throw the thermostats in the trash. The data shows that when technicians do dispose of the mercury containing thermostats that they generally take them to the correct place, the wholesaler, but it also shows that there is room for improvement in keeping the thermostats out of the trash.

The survey then inquired about what internal mechanisms employers might be using to encourage technicians to recycle thermostats:

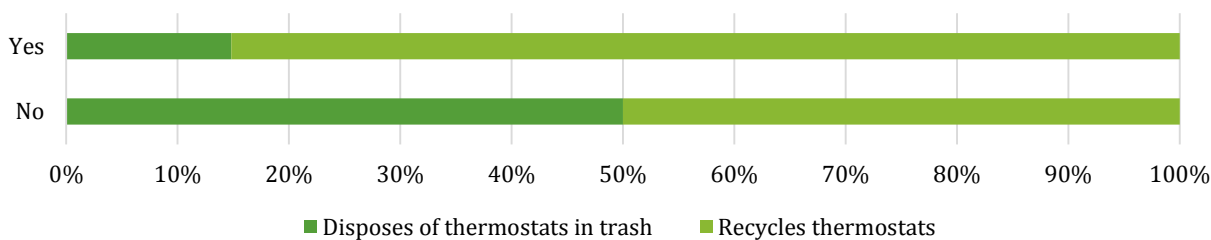
PROGRAM EDUCATION AND OUTREACH

Are you required by your employer to recycle mercury containing thermostats?



The fact that only 71% of employers require their technicians to recycle mercury containing thermostats might explain why 25% of technicians may occasionally dispose of them in the trash. In order to verify this a cross reference was drawn between whether employers require recycling and technicians that throw away thermostats in the trash.

Are you required by your employer to recycle mercury containing thermostats?



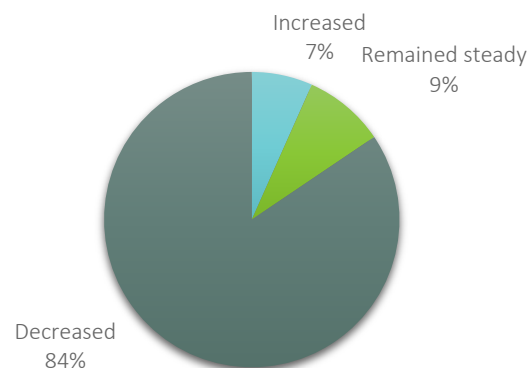
The above chart shows that 85% of technicians whose employer requires recycling of mercury containing thermostats actually recycle. By contrast, only 50% recycle without employer requirement. This strongly suggests that employer policies do have a substantive impact on recycling by employees.

PROGRAM EDUCATION AND OUTREACH

Mercury Containing Thermostat Prevalence

In an effort to determine how many mercury containing thermostats are still in use and whether the number in use has significantly decreased the following question was posed:

Would you say that during the time you have worked as a technician/contractor the number of mercury containing thermostats you encounter has...



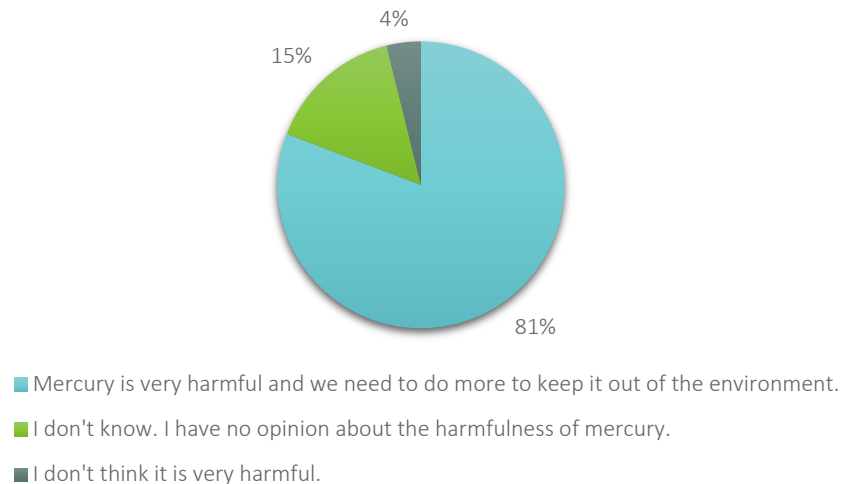
When asked how the number of mercury containing thermostats encountered during their career had changed most technicians felt that there had been a decrease. This leads to the conclusion that the number of available thermostats has also decreased.

Environmental Concern

To gauge the level of which technicians are concerned about the environment and how mercury plays in to that the following question was asked of technicians:

PROGRAM EDUCATION AND OUTREACH

Which of the following statements best reflects your personal opinion of the harmfulness of mercury?



The above chart identifies that most technicians feel that mercury is very harmful and needs to be kept out of the environment. This suggests that a campaign that highlights the negative impact that mercury has on the environment and draws the connection to how technician recycling can help reduce these impacts may be an effective way to boost participation.

Conclusions

The majority of technicians surveyed realize that mercury is harmful and needs to be kept out of the environment. However, 25% of technicians still dispose of mercury containing thermostats in the trash. Through this survey it is also known that over a quarter of technician employers do not require that their technicians recycle mercury containing thermostats. This suggests that TRC should work with employers to educate technicians on the program and encourage employers to require that mercury containing thermostats are disposed of properly. Since most technicians personally believe that mercury is bad for the environment creating an awareness campaign educating technicians on the importance of recovering mercury containing thermostats will aid in increasing participation. See Appendix 12 for survey raw results.

PROGRAM EDUCATION AND OUTREACH

HVAC CONTRACTOR OUTREACH

TRC staff helped develop a draft model HVAC contractor environmental policy and shared it with the trade group, ACCA (Appendix 13). TRC's goal is to work with ACCA and other trade groups to provide this template as a service for contractor's employee handbooks.

HOUSEHOLD HAZARDOUS WASTE FACILITY OUTREACH

In September TRC developed a tri-fold brochure specifically for household hazardous waste (HHW) facilities to target their customers (Exhibit 24). It included information on how to locate HHW facilities nation-wide using TRC's website and information on how to properly prepare to dispose mercury thermostats. The brochure PDF is now available on TRC's website as a promotional toolkit download, and hard copies are available by request.

In 2016 the "RIDEM Response to Comments and 2015-2020 Final Thermostat Collection Goals," referenced RIDEM's RI Resource Recovery Corporation (RIRRC) efforts to divert collected mercury thermostats through TRC's program. TRC looks forward to this partnership.

EXHIBIT 24: HHW TRI-FOLD BROCHURE

Outside:



PROGRAM EDUCATION AND OUTREACH

Inside:

Frequently Asked Questions

What is the purpose of the Thermostat Recycling Corporation (TRC) program?
The goal is to recycle all mercury containing thermostats that are replaced.

What should I do?
Drop your mercury thermostats off at your local HHW facility.

What thermostats can I recycle?
All brands of wall-mounted, mercury switch thermostats.

Which HHWs participate?
You'll find the recycling bins at hundreds of locations across the nation. View a list of participating collection sites at thermostat-recycle.org.

How do I know if the thermostat contains mercury?
If the thermostat uses a dial or lever, odds are it contains mercury and needs to be recycled.

Should I take out the mercury switch?
No. Return the entire thermostat intact, including the cover. The thermostat casing protects the mercury switch during shipment.

What's not accepted under TRC's program?

- Loose mercury switches (bulbs)
- Leaking mercury-switch thermostats
- Electronic thermostats and other thermostats without mercury switches
- Batteries, fluorescent light bulbs and other devices containing mercury

How are thermostats collected?
HHW facilities and HVAC wholesale distributors place recycling bins in their locations. Retailers collect thermostats directly from customers. Contractors and homeowners collect out-of-use mercury thermostats through their normal business and can drop them off for collection at any location.

What happens after I drop of the old thermostats?
When the collection site's bin is full they send it to TRC's recycling center. The switches are removed and forwarded to a mercury recycler.

Do I have to recycle mercury thermostats?
Certain states prohibit the disposal of mercury thermostats in the trash. Some further require all HVAC contractors in the state to recycle every mercury thermostat removed from service. Visit our website to see these state regulations.

What else should I know?
Most thermostats are replaced by HVAC contractors. We encourage you to ask your contractor what they do with old mercury thermostats and inform them of this free program if they are not participating.



UTILITY PROGRAM/IMPLEMENTOR OUTREACH

The TRC staff engaged with the industry leading company, Cadmus to produce a report identifying current demand response projects. This report was able to show TRC which implementers had current projects of demand response that involved thermostat replacement components. TRC focused efforts on these implementers as a source for large thermostat replacement in areas such as low-income and multi-family.

TRC supplied the trade organization, GasNetworks, with marketing material to promote on its website, and attended their annual trade show for the first time.

TRC staff wrote model utility implementer RFP requirements to share with utility companies (Exhibit 14). The focus of the model is to help utilities expand environmental compliance requirements for their implementers. This language would essentially be a term of agreement between the utility company and the hired implementer. TRC also began engagement with two non-TRC members interested in the recycling mercury issue, ecobee and NEST, by submitting to them MOU's. All parties involved hope to do more with the TRC program.

PROGRAM EXPENSES

Below is a summary of TRC's national program expenses for 2015. A copy of TRC's 2014 IRS Form 990 is available for inspection.

EXHIBIT 25: 2015 PROGRAM ADMINISTRATIVE EXPENSES

Program Component	2014	2015	% Change
TRC Staff and Administration	\$ 593,631	\$ 625,205	5%
Recycling Costs	\$ 356,043	\$ 347,555	-2%
Incentive/Promotional Payments	\$ 47,712	\$ 42,224	-12%
New Collection Containers	\$ 15,108	\$ 10,960	-27%
Travel	\$ 70,120	\$ 81,152	16%
Legal	\$ 40,373	\$ 21,228	-47%
Direct Expense for Marketing & Outreach	\$ 289,347	\$ 277,995	-4%
Total (expenses)	\$1,412,333	\$1,406,319	0%

Compared to last year, variances in these program components were flat. Causes for changes include:

- Recycling Costs:** A decrease in whole thermostats processed as compared to 2014. Recycling costs are directly related to how many whole thermostats are collected at TRC's processing facility in Golden Valley, MN. The program's collections decreased by a little over 2%.
- Incentive/Promotional Payments:** Incentive payments in Maine were flat. In Vermont they were up with more Retailers and Wholesalers participating. California incentive expenses were down slightly, and Illinois promotional payments were down significantly due to a large wholesaler choosing not to participate in an incentive program.
- New Collection Containers:** Orders were down 27%. TRC expects a continued decrease in container orders because the program is operating in a mature collection environment and available new locations to collect are decreasing.
- Travel:** The Director of National Accounts spent more than 60% of his time attending trade shows, site visits, and attending meetings with key corporate contacts. TRC visited 22 states, up 38% compared to 2014.

PROGRAM EXPENSES

- Direct Expense for Marketing and Outreach:** The category used for Marketing Consulting was down considerably compared to 2014 due to the Director of Marketing and Communications taking on more responsibility. TRC also spent less on retail displays compared to 2014. This is as a result of declining available locations which were willing to accept merchandising displays for their businesses. Lastly, both Advertising and Graphic Design increased as TRC created its new 2016 marketing campaign, “Recycle every mercury thermostat, every time”.

EXHIBIT 26: 2015 PROGRAM EXPENSES WITH RHODE ISLAND SPECIFIC COSTS

Program Component	Total Expenses	RI
TRC Staff and Administration	\$ 625,204.88	\$ 5,092.31
Recycling Costs	\$ 347,555.25	\$ 3,871.00
Incentive/Promotional Payments	\$ 42,224.42	\$ -
New Collection Containers	\$ 10,960.00	\$ -
Travel	\$ 81,152.16	\$ 981.28
Legal	\$ 21,228.28	\$ 51.37
Direct Expense for Marketing & Outreach	\$ 277,994.50	\$ 5,479.96
Total (expenses)	\$ 1,406,319.49	\$ 15,475.91

- TRC Staff and Administration:** On July 1st 2015, TRC changed policy regarding tracking of employee’s time worked. This procedural change was predicated by state specific statutory regulations for TRC, particularly requirements on TRC to report costs associated with its employee’s time allocated to state specific activities. This policy change was for all TRC employees, including those who were exempt and non-exempt. The procedure was implemented starting in July to offset this requirement. Although not a perfect subset of data, the hours worked (as a percentage) were then mirrored to reflect employee’s time worked for the first half of the year. The decision to mirror time worked was determined due to the inaccuracies of having each employee go back to the start of the year and identify their hours worked by state, particularly for those employees whom were exempt. TRC acknowledges that it may under-estimate the hours worked in the state for 2015.

PROGRAM EXPENSES

However, all new employees after July 1st 2015 and any time entered for 2016 will accurately capture each employee's actual time worked by state.

- **New Collection Containers:** Fulfillment of new collection containers is done annually at TRC's processing facility in Golden Valley, MN. TRC does not currently allocate the costs of new containers to specific states, instead choosing to keep this in one cost center and including any costs from an order for containers in "Recycling Costs". In 2015, Rhode Island ordered 0.23% of all new container orders.

PROGRAM ADJUSTMENTS

2016 ANNUAL GOALS

TRC again set annual goals for the organization for the calendar year of 2016. The 2016 goals were developed by TRC staff and incorporate each operational area of the organization, including:

- 1) Continue to increase efforts of collecting mercury thermostats by exploring non-traditional avenues
- 2) Steer TRC toward tactical, positive, cohesive messaging while implementing marketing strategies
- 3) Continue fulfilling all members' state specific legal requirements without losing continuity
- 4) Maximize human capital opportunities by utilizing available internal and external resources

Many of the activities which drive TRC's daily functions are captured in the spirit of these goals. Developing a list of high level external goals allows TRC to keep its focus on the ultimate mission of recycling every mercury thermostat, every time.

COLLECTION LOCATION TOUCH CAMPAIGN

In 2016 TRC will launch a comprehensive location outreach plan that strategically coordinates and schedules outbound phone calls, reminder postcards, and site visits throughout the year. Designed around the year's site visit travel schedule, phone calls have been scheduled to occur within two months of TRC staff physically visiting a state, and postcards have been scheduled to follow up these phone calls within two months. Special attention will be focused on states with mandatory collection programs, including Rhode Island, which will entail up to 120 phone calls to collection locations that have not returned a bin within the past year. States with non-mandatory collection programs will continue to receive up to 60 collection location phone calls in 2016.

Additionally, each state's TRC collection locations which haven't returned a bin within the last year will continue to receive reminder "Miss you" postcards every four months of the year. By strategically coordinating the time of outreach between these three mediums (site visits, phone calls, postcards) TRC hopes to maximize the impact of each initiated contact effort.

PROGRAM ADJUSTMENTS

BRANDING CAMPAIGN

In January TRC placed a full-page color ad in *ACHR News*, one of the industry's leading HVAC publication with a weekly circulation of more than 33,000 (Exhibit 27). The ad appeared during the week of the AHR Expo, which is one of the more popular issues of the magazine. The ad tied TRC's members and affiliates together around the call to action of recycling every mercury thermostat, every time. TRC resized this ad to place a half-page size in the February issue of *HVACR Business Magazine* as well.

EXHIBIT 27: ACHR NEWS FULL PAGE AD


**AN IMPORTANT MESSAGE TO
HVAC CONTRACTORS:**

EVERY **MERCURY** EVERY
THERMOSTAT TIME

Mercury thermostats contain between
3-12 grams of mercury. As an industry,
we sold and installed these devices.
Now, let us work together to **properly
manage their disposal.**

**JOIN US IN SUPPORTING
MERCURY THERMOSTAT RECYCLING**

APR Supply Co. | Bard Manufacturing Corporation | Carrier Corporation | C.C. Dickson Co. | Chromalox
Climate Master, Inc. | Crescent Parts and Equipment | Daikin Applied
Emerson Electric Co. / White-Rodgers | Empire Comfort Systems | Ferguson
Gustave A. Larson Company | G.W. Berkheimer | Honeywell International Inc. | Hunter Fan Company
Ingersoll Rand | Irr Supply Centers | Johnson Controls | Johnson Supply | Johnstone Supply
Lennox International Inc. | Lux Products Corporation | Nortek Global HVAC
R.E. Michel Company, Inc. | Rheem Manufacturing Company | Taco Comfort Solutions | Uponor, Inc.
U.S. Air Conditioning Distributors | Vaillant Corporation | W. W. Grainger


an industry-funded non-profit

PROGRAM ADJUSTMENTS

Additionally in January, TRC launched a new branding campaign: “Recycle every mercury thermostat, every time” (Exhibit 30). The campaign messaging is based off frequent feedback TRC staff receives from contractors, who tend to comment, “What’s the big deal about mercury? I used to play with it in school as a kid.” This new messaging compares mercury thermostats to kids playing with HVAC tools. HVAC tools are safe when used properly, just like mercury thermostats are safe when recycled and disposed of properly.

EXHIBIT 28: NEW BRANDING CAMPAIGN



The advertisement features the Thermostat Recycling Corporation logo at the top left, which includes a green recycling symbol and the text "Thermostat Recycling CORPORATION". The main headline, "WOULD YOU LET YOUR KIDS PLAY WITH THESE?", is displayed in white text on a green background. Below this, a photograph shows a young boy holding a power drill and a young girl holding a chainsaw. The text "You may have played with mercury as a kid, but times have changed." is positioned to the left of the children. At the bottom left, there is a green recycling bin with a recycling symbol. The website address "WWW.THERMOSTAT-RECYCLE.ORG" is printed in white at the bottom right.

Thermostat Recycling CORPORATION

WOULD YOU LET YOUR KIDS PLAY WITH THESE?

You may have played with mercury as a kid, but times have changed.

RECYCLE EVERY MERCURY THERMOSTAT, EVERY TIME.

WWW.THERMOSTAT-RECYCLE.ORG

TRC updated its trade show booth display with the new artwork and messaging, and the campaign will continue throughout the year in print and digital advertising placements, with several different versions featuring different kids with tools.

PROGRAM ADJUSTMENTS

PAID ADVERTISING

Additionally, TRC is currently working to update its Google Adword campaign to include display ads, which include images versus only text, to enhance the visibility of the ads. TRC also plans to implement Facebook, and potentially YouTube, advertising in the spring and fall during the HVAC industry's busier seasons when mercury thermostats are more likely to be replaced. Ads will have similar messaging to the Google AdWord campaign and be targeted to states with disposal bans.

Some additional planned advertising and promotion (subject to change) include:

- 1/4pg full-color ad in *Distribution Center Magazine* for three months
- 1/2pg spot-color ad in *HVAC Insider New England* for four months
- Skyscraper banner ad on ACHRNews.com for two months
- Website Topic Sponsorship on ACHRNews.com for three months
- Top leaderboard ad in *ACHR News* newsletter for two months
- *ACHR News* digital edition video spotlight
- *ACHR News* digital edition sponsorship
- Feature leaderboard ad in NATE's bi-monthly newsletter for two months
- Medium rectangle banner ad in *Distribution Center's* weekly newsletter for two months
- Banner ad in AHRI's weekly newsletter for 13 weeks
- *HVACR Business Magazine's* web package for two months, including a video and three different sized ads on their website
- Continue to exhibit at regional and key national industry events.
- TRC plans on continuing efforts to engage larger contractors and HVAC wholesale distributors

PROGRAM EVALUATION

This section of the report examines the annual performance of the thermostat collection recycling program in terms of bins, thermostats, and mercury collected as well as the year over year progression of the program.

TRC notes, that the mercury auto switch (ELVS) program collections have been trending downward or flat at best in recent years in Rhode Island. According to a recent report², “they have not been placed in vehicles since model year 2003.” Mercury switch thermostats have not been sold since the mid 2000’s nor installed legally in many states. Moreover, many were replaced with non-mercury units because electronic programmable thermostats had become available many years earlier. Thus, given the correlation of neither discontinued product being placed in the market for 10 or more years, TRC results will reflect similar indicators from the mercury auto switch program.

1.1: PROGRAM PERFORMANCE OVER TIME

On average, the program has **collected 10.6 pounds of mercury and 1,284 thermostats per year** since 2007. In 2015 the program **collected 16.72 pounds of mercury from 2,212 thermostats**, a decrease from the previous year of 28.6% in pounds of mercury and 16.9% in thermostats. Figure 1.1 displays the total number of bins collected, the total number of thermostats, and the total pounds of mercury collected in the state since the beginning of the program.

² Maine Department of Environmental Protection. Implementing Product Stewardship in Maine, Jan. 2016. Web. 1 March 2016.

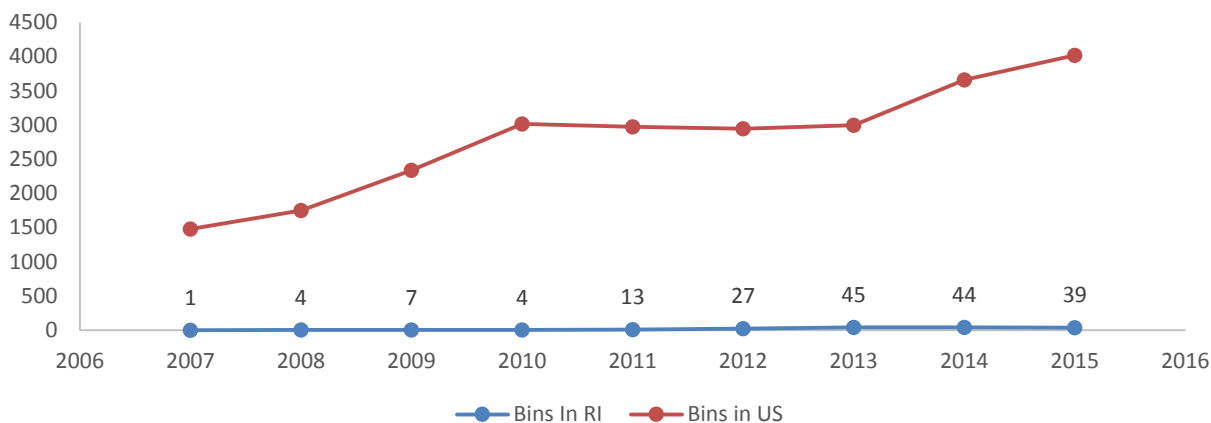
PROGRAM EVALUATION

FIGURE 1.1: PROGRAM PERFORMANCE OVER TIME

Year	Number Bins	Number Stats	Lbs Mercury
2007	1	81	0.73
2008	4	370	2.95
2009	7	654	7.37
2010	4	420	2.79
2011	13	1,068	10.32
2012	27	1,617	12.64
2013	45	2,477	18.25
2014	44	2,661	23.43
2015	39	2,212	16.72
<i>Average</i>	<i>20.4</i>	<i>1,284.4</i>	<i>10.6</i>
<i>Total</i>	<i>184</i>	<i>11,560</i>	<i>95</i>

Figure 1.2 graphically displays the number of bins collected in the state over time as well as the total number of bins collected in the US over the same time period. The figure shows that the number of bins collected annually increased from 2007 to 2013, with a slight dip from 44 bins in 2014 to 39 bins in 2015.

FIGURE 1.2. BINS COLLECTED OVER TIME IN STATE AND NATIONALLY



PROGRAM EVALUATION

In RI, the **pounds of mercury collected in 2015 decreased by 29% over 2014 levels**. However, since the program began in 2007, the annual pounds of mercury collected in RI has increased by an average of 91% per year. During the same time period, the pounds of mercury collected in the nation increased by 17% per year. Figure 1.3 displays the total number of pounds of mercury collected in the state over time as well as the year over year percent increase (or decrease) in the state and the US as a whole.

FIGURE 1.3: POUNDS OF MERCURY COLLECTED IN PROGRAM AND YEAR OVER YEAR CHANGES IN STATE AND US.

Year	Total Lbs Hg	% Change State	% Change US
2007	0.73	N/A	N/A
2008	2.95	306.0%	16.3%
2009	7.37	150.3%	16.3%
2010	2.79	-62.2%	26.1%
2011	10.32	270.0%	3.6%
2012	12.64	22.5%	-5.3%
2013	18.25	44.3%	-4.8%
2014	23.43	28.4%	12.9%
2015	16.72	-28.6%	12.9%
<i>Average</i>	<i>10.58</i>	<i>91%</i>	<i>10%</i>

PROGRAM ANALYTICS

The state of RI collected 2,212 thermostats in 2015. This was **17% decrease over the number of thermostats collected in 2014** but a **2,631% increase since 2007**. The number of thermostats collected annually in RI has increased by an **average of 81% every year since 2007**. During the same time period, the number of thermostats collected in the US has increased by an annual average rate of 11%. Figure 1.4 displays the total number of thermostats collected in the state and the nation and figure 1.5 shares the underlying data as well as the calculated year over year percent change.

PROGRAM EVALUATION

FIGURE 1.4: NUMBER OF THERMOSTATS COLLECTED OVER TIME STATE AND NATIONAL

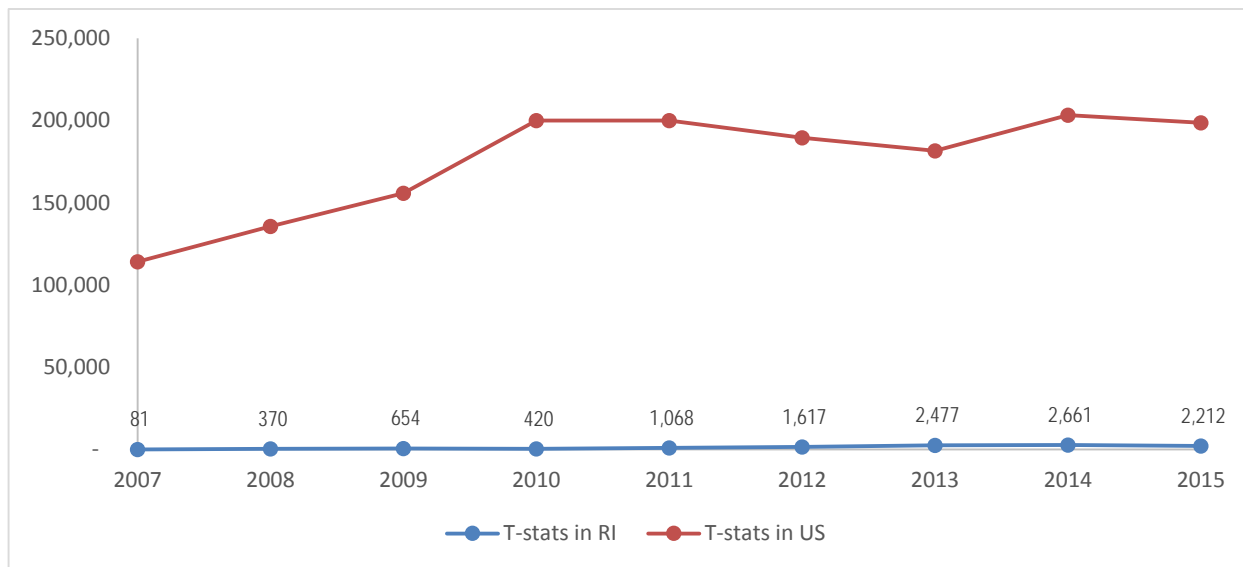


FIGURE 1.5: THERMOSTATS COLLECTED IN RI AND US OVER TIME AND YEAR OVER YEAR PERCENT CHANGE

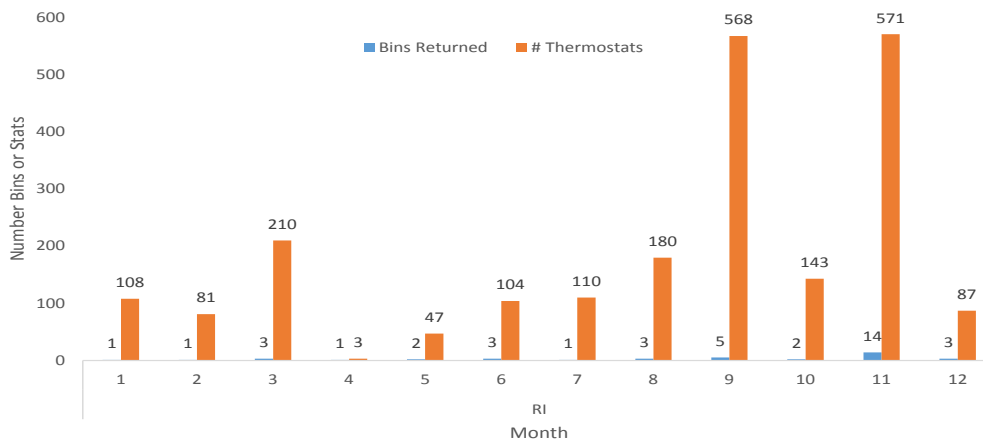
Year	T-stats in RI	T-stats in US	% Change State	% Change US
2007	81	114,158	NA	NA
2008	370	135,646	357%	19%
2009	654	155,731	77%	15%
2010	420	200,064	-36%	28%
2011	1,068	199,918	154%	0%
2012	1,617	189,619	51%	-5%
2013	2,477	181,600	53%	-4%
2014	2,661	203,346	7%	12%
2015	2,212	198,603	-17%	-2%
<i>Average</i>	<i>1,284.4</i>	<i>175,409.4</i>	<i>81%</i>	<i>8%</i>

Figure 1.6 displays the monthly distribution of bins and thermostats collected in the state over 2015. The months with the greatest number of bins returned were **November** (14 bins) and **September** (5 bins). The months with the greatest number of thermostats returned were **November** (571 thermostats), **September** (568 thermostats), and **March** (210 thermostats).

PROGRAM EVALUATION

Conversely, the months with the fewest number of thermostats returned in 2015 were April, May and February.

FIGURE 1.6. THERMOSTATS AND BINS COLLECTED PER MONTH 2015



The highest number of thermostats per bin were in **September** (113.6) and **July** (110.0). Figure 1.7 shows the average number of thermostats per returned bin per month for the year.

PROGRAM EVALUATION

FIGURE 1.7: AVERAGE THERMOSTATS PER BIN RETURNED PER MONTH

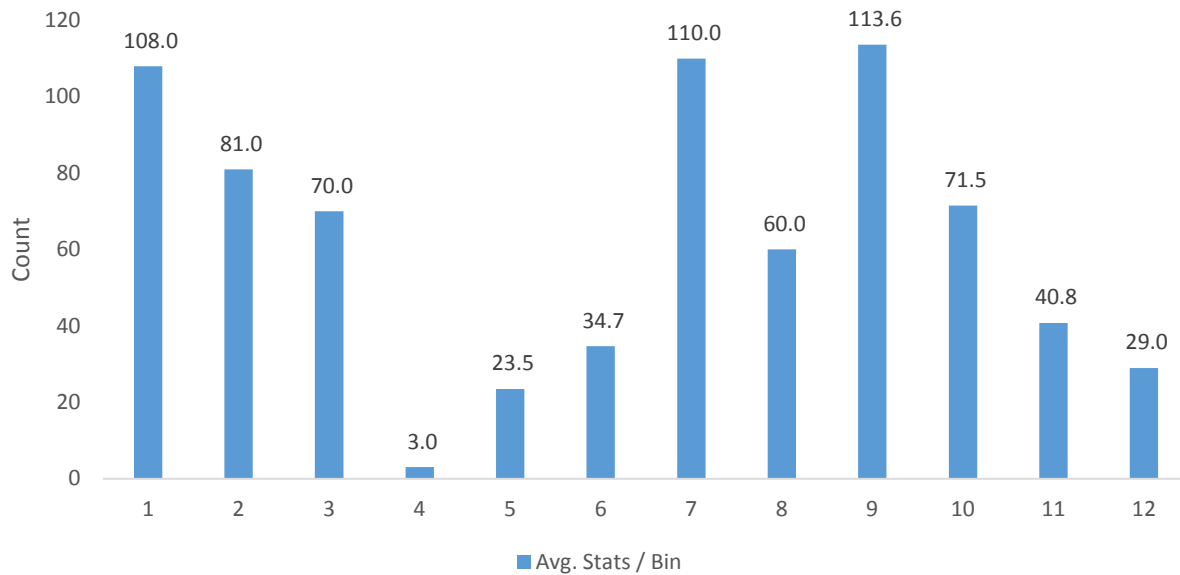


Figure 1.8 displays the average number of thermostats returned per bin in the state and in the US since the beginning of the state program. Nationally, the number of thermostats per bin has been decreasing annually since 2000. In RI the number of thermostats per bin in 2015 (**56.7 thermostats / bin avg.**) was near the low reported in 2013 (55.0). The 2015 average was below the nine year average of 76.2 thermostats per bin.

PROGRAM EVALUATION

FIGURE 1.8: AVERAGE NUMBER OF THERMOSTATS PER BIN OVER TIME IN STATE AND NATIONAL

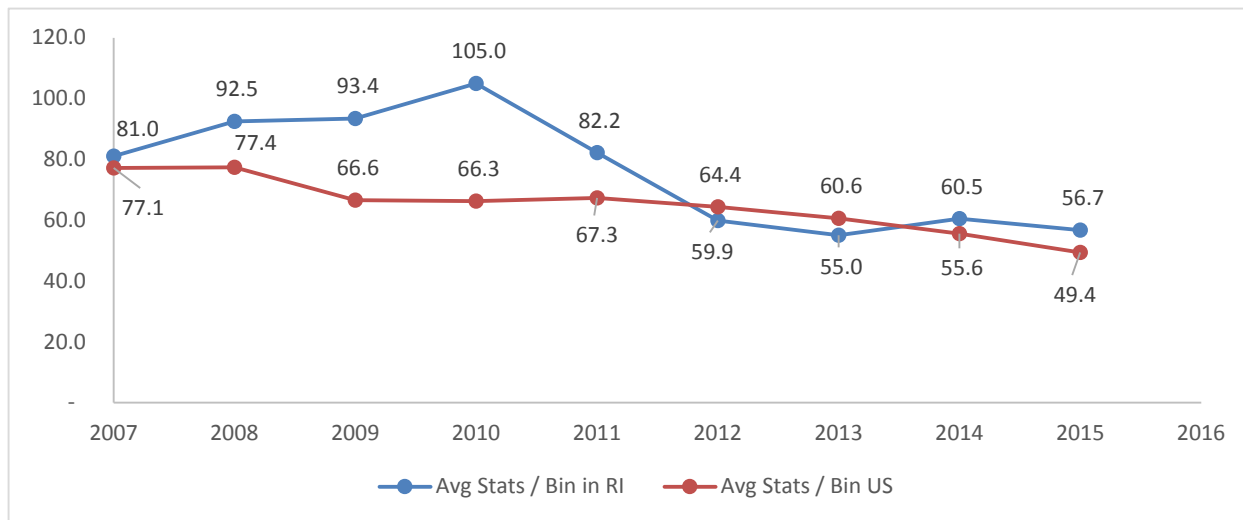
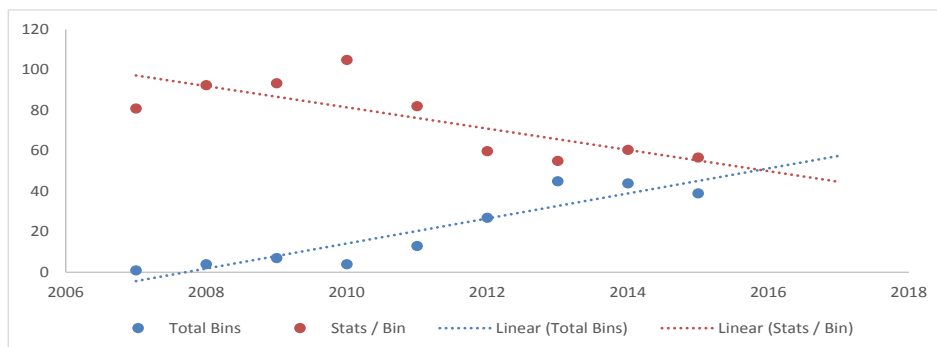


Figure 1.9 plots the total bins returned over time along with the average number of thermostats per bin over the same period to see whether or not there is a relationship between the two. A linear regression found a strong negative correlation ($r=-.90$, slope=-.914) between the two variables. This indicates that as more bins are returned, the number of thermostats per bin declines.

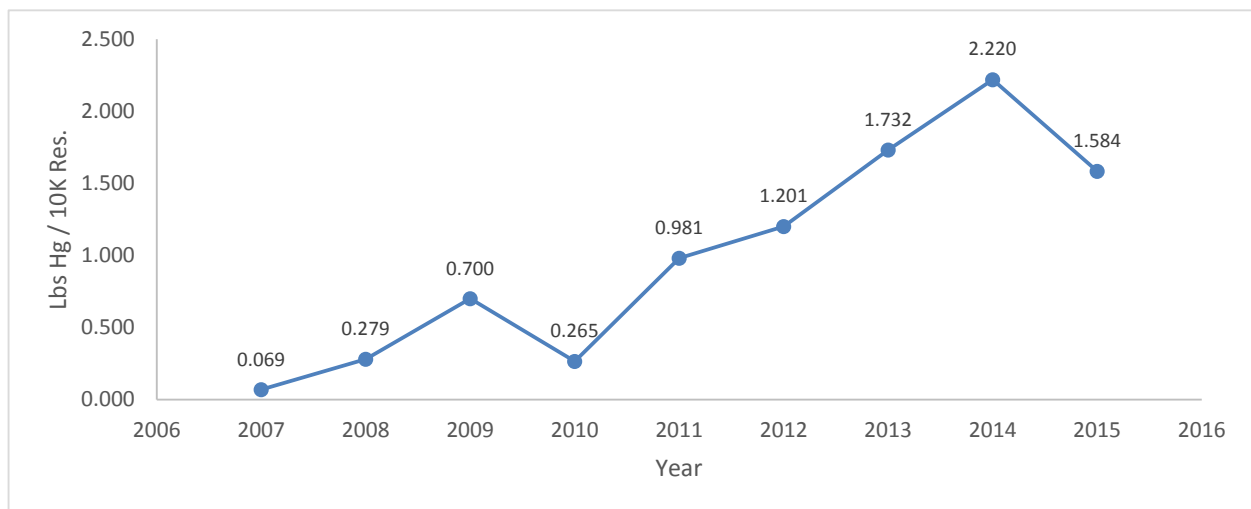
FIGURE 1.9: TOTAL BINS AND AVERAGE NUMBER OF THERMOSTATS PER BIN OVER TIME



PROGRAM EVALUATION

The **total pounds of mercury collected per 10,000 residents was 1.58 in 2015**. This is a 29% decrease from the record high set for the state of RI in 2014 of 2.22 pounds per 10,000 residents collected in 2014. However, the 2015 figure is nearly 22 times the 2007 pounds collected per 10,000 residents. Figure 1.10 displays normalize data for the total pounds of mercury collected per 10,000 state residents over time.

FIGURE 1.10: POUNDS OF MERCURY COLLECTED ANNUALLY PER 10,000 RESIDENTS

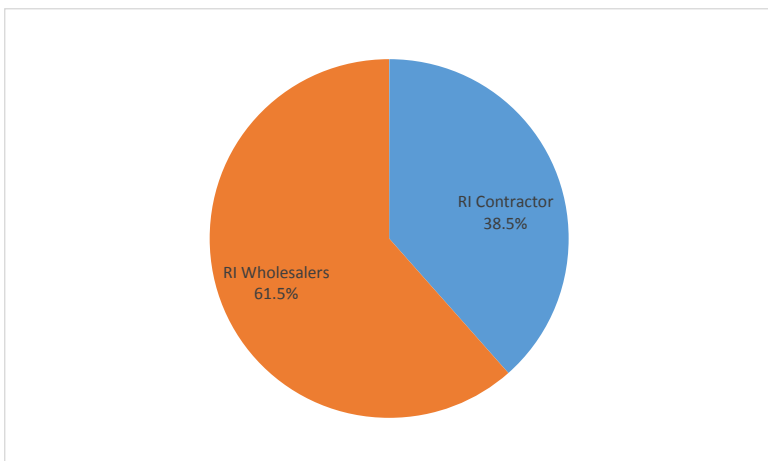


CHANNEL PARTNER ANALYSIS

Section 2 of the report examines the partner locations in more detail. The majority of thermostats collected in state were through **wholesalers (61.5%)** with the remaining thermostats collected by **contractors (38.5%)**. Figure 2.1 shows the distribution of thermostats collected by location type in 2015.

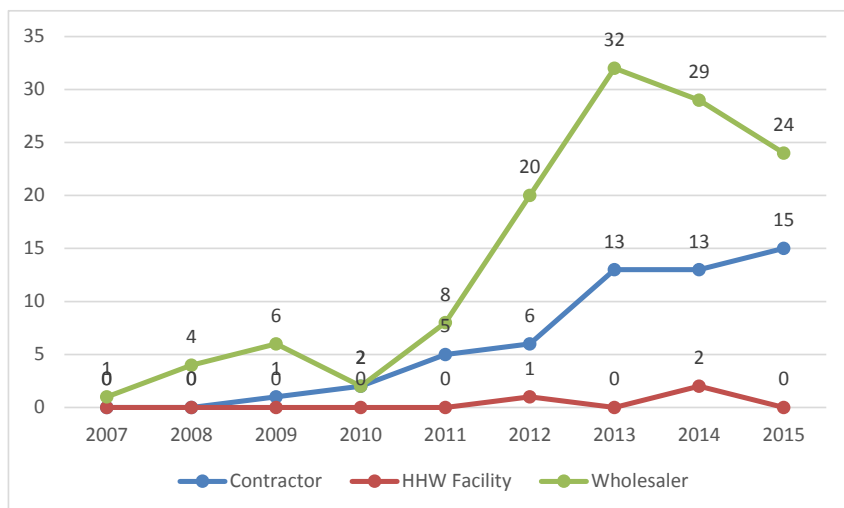
PROGRAM EVALUATION

FIGURE 2.1: THERMOSTATS COLLECTED BY LOCATION TYPE IN 2015



The number of bins returned by wholesalers decreased from 29 bins in 2014 to 24 bins from wholesalers in 2015. At the same time, the number of bins returned by contractors increased from 13 to 15 from 2014 to 2015. The number returned by household hazardous waste facilities dropped from 2 bins in 2014 to none in 2015. Figure 2.2 displays the change in the number of bins returned by thermostat collection type over time in the state.

FIGURE 2.2: THERMOSTAT BIN RETURNS BY LOCATIONS OVER TIME



PROGRAM EVALUATION

In 2015, **42.9% of the locations** that had a bin in the state of RI sent back at least one bin for recycling. The distribution is displayed in Figure 2.3.

FIGURE 2.3: PERCENTAGE OF STORES RETURNING A BIN IN 2015

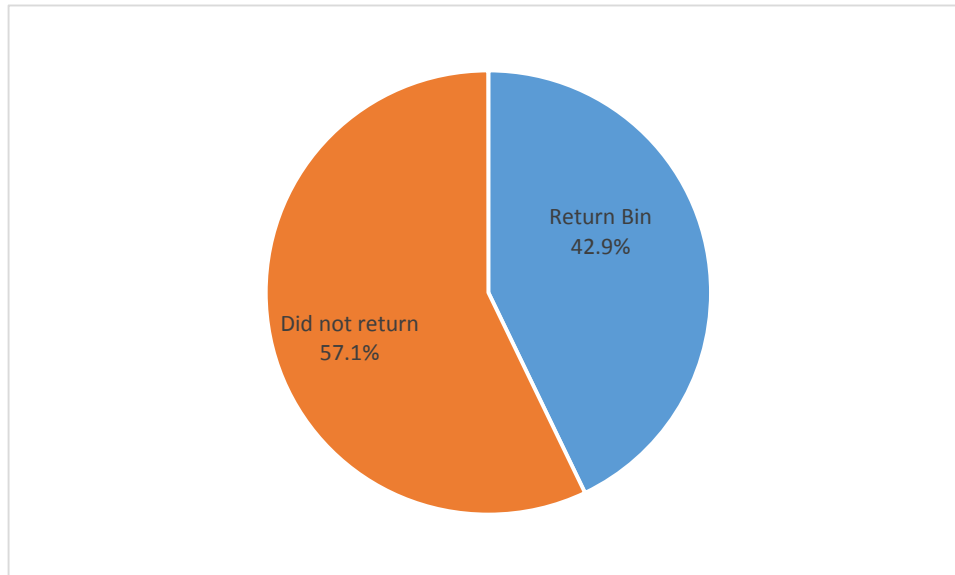
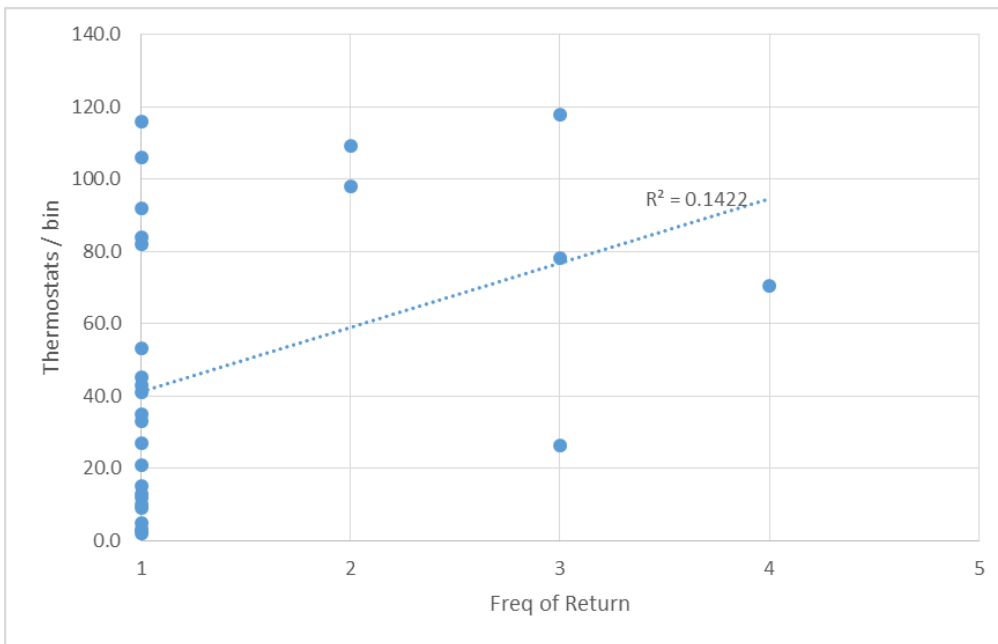


Figure 2.4 is a scatter plot comparing the frequency of bin returns per location and the number of thermostats per bin. The analysis sought to determine whether there was any correlation between the frequency of return and the number of thermostats per bin. While there was only a weak statistical correlation between the two variables, the scatter data does seem to slightly indicate that bins that were returned more frequently also tended to have more thermostats per bin in RI.

PROGRAM EVALUATION

FIGURE 2.4: CORRELATION OF FREQUENCY OF BIN RETURN AND NUMBER OF THERMOSTATS PER BIN



An analysis of the top performing counties in terms of total bin returns and total thermostats returned in 2015 was conducted. The county with the most bins returned in 2015 were **Providence (31 bins)**, followed by **Kent and Newport (4 bins each)**. The counties with the most thermostats returned in 2015 were **Providence (1,931)**, **Newport (165 thermostats)** and **Kent (116 thermostats)**. Figure 2.5 displays the total bins and thermostats returned, by county, in 2015.

FIGURE 2.5: BIN RETURNS AND TOTAL THERMOSTATS RETURNED IN 2015 BY COUNTY

County	Total Bins	Total T-stats
Bristol County	0	0
Kent County	4	116
Newport County	4	165
Providence County	31	1931
Washington County	0	0

PROGRAM EVALUATION

RISE Engineering (13 bins) returned the highest number of bins in the state in 2015, followed by **United Refrigeration and Supply New England (3 bins each)**. R.E. Michel Company ran a promotion with “5 for \$5 Dunkin Doughnuts,” and they tied for third in the number of bins returned and came in second for number of thermostats returned. Petro Oil also offered a branch incentive, but they did not appear as one of the top performing partners in the state. In addition to the top performers included in the figure, 16 additional program partners returned 1 bin each. Figure 2.6 displays the top performing partners in terms of total bins returned in 2015.

FIGURE 2.6. TOP PERFORMING CHANNEL PARTNERS IN STATE

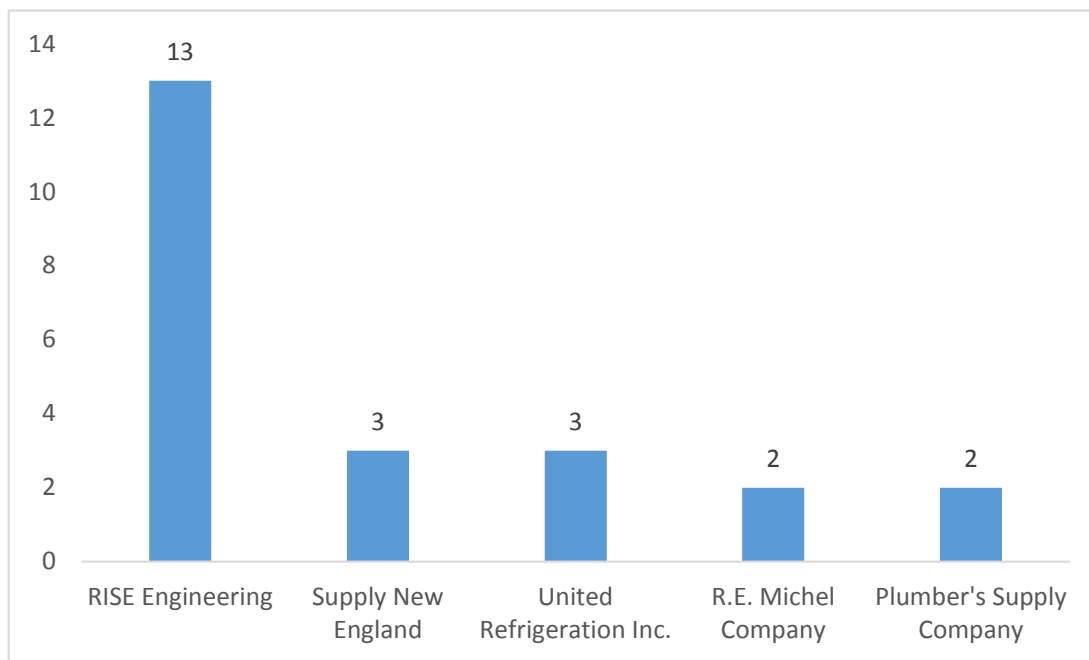


Figure 2.7 looks at the top performers in a more detail. The figure includes the top performers for the year by each of the following categories: total bins returned, total thermostats, and average number of thermostats per bin.

PROGRAM EVALUATION

FIGURE 2.7. TOP PERFORMING PARTNERS BY TOTAL BINS, TOTAL THERMOSTATS, AND THERMOSTATS PER BIN

	No. of Bins	No. of Thermostats	Thermostats/Bin
RISE Engineering	13	1,171	90.1
Supply New England	3	26	8.7
United Refrigeration Inc.	3	79	26.3
R.E. Michel Company	2	218	109.0
Plumber's Supply Company	2	62	31.0

TRC conducted several activities in 2015 as a way to increase the number of bins and thermostats returned in the state. These activities included site visits and 'miss you' calls to collection locations that may not have participated in the program recently. In 2015, a total of 22 site visits were conducted in RI and 8 'Miss You' calls were placed. Figure 2.8 displays the relationship between the number of site visits per month, the bin returns per month, and the number of thermostats (in 100's) returned per month. Although the figure seems to suggest there is a positive relationship between the number of visits and the number of thermostats returned, there was not a statistically significant relationship between the two variables.

PROGRAM EVALUATION

FIGURE 2.8: RELATIONSHIP BETWEEN SITE VISITS AND BINS AND THERMOSTATS RETURNED PER MONTH

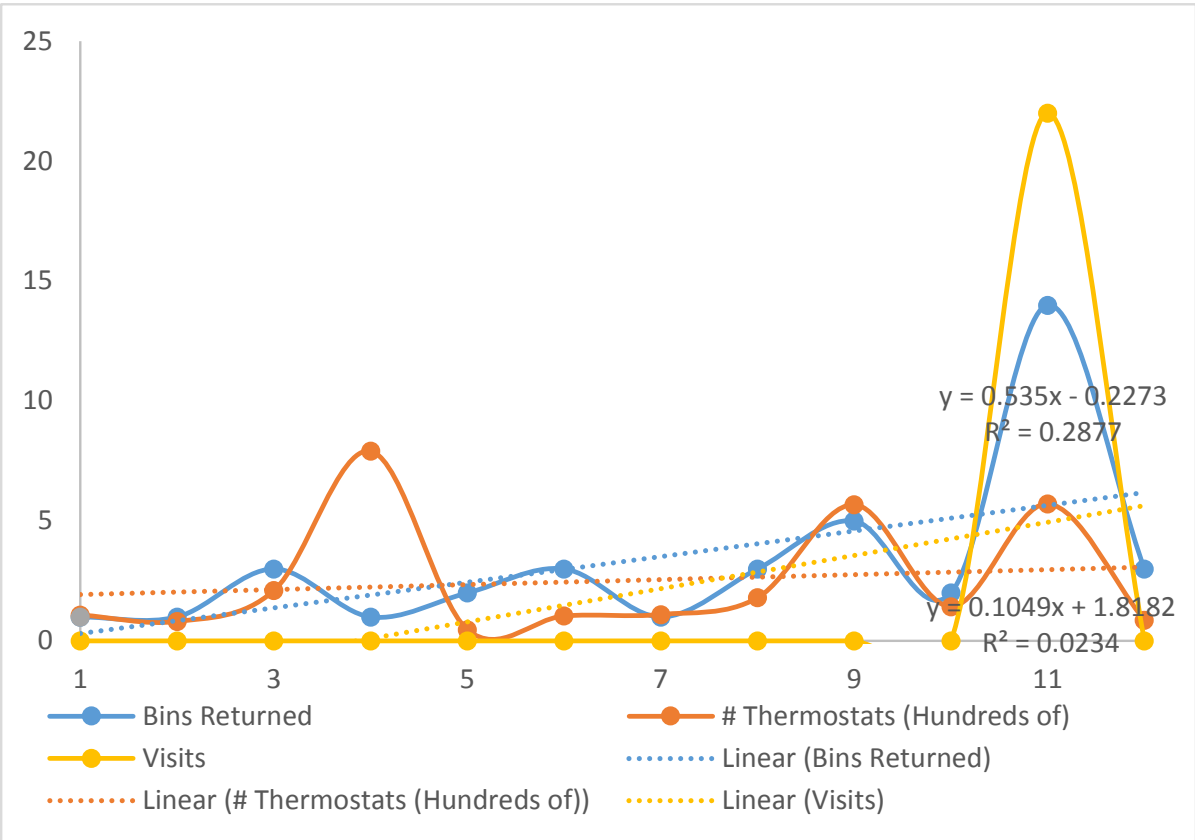
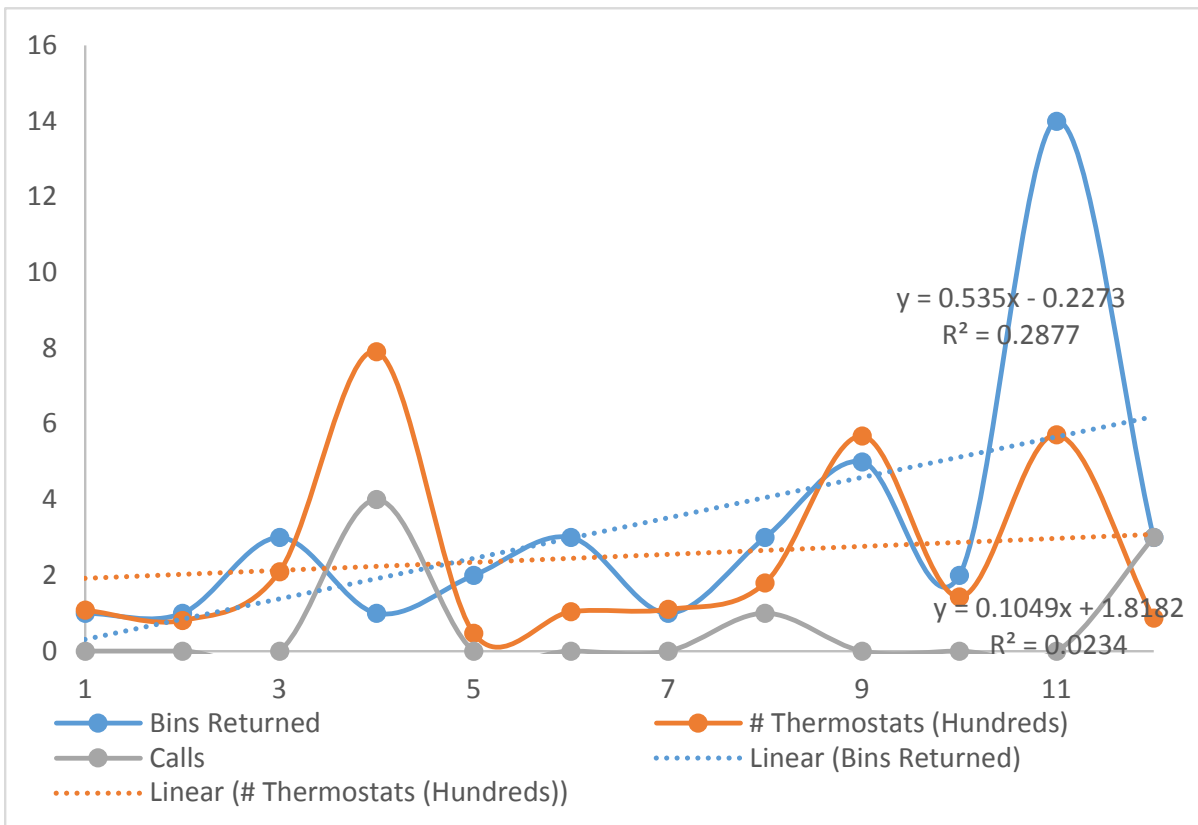


Figure 2.9 displays the relationship between the number of calls per month, the bin returns per month, and the number of thermostats (by 100's) returned per month. Once again there was not a statistically significant relationship between the two variables.

PROGRAM EVALUATION

FIGURE 2.9: RELATIONSHIP BETWEEN 'MISS YOU' CALLS AND BINS AND THERMOSTATS RETURNED PER MONTH



COMPARISONS TO NATIONAL AND OTHER STATE'S DATA

To compare how the state collection partners performed in 2015, the national averages for the number of bins returned per total locations since 2012 was calculated and compared to the state average over the same time period. The average numbers of bins includes locations that did not return any bins in a given year. It should be noted that when making comparisons each state has different regulations, housing stock mix, local policies, and incentives that may have a significant impact on returns. Overall, the average number of bin returned per location per year was lower in RI than the US average and the annual averages are shown in figure 3.1.

PROGRAM EVALUATION

FIGURE 3.1: AVERAGE NUMBER OF BINS RETURNED PER LOCATION PER YEAR

Average number of bins returned per year per locati	2012	2013	2014	2015
US total	1.4	1.4	1.6	1.8
RI Average	0.68	1.13	1.10	0.98

Figure 3.2 displays the locations in RI that returned more than one bin in a given year since 2012 and figure 3.3 displays the top 10 partners in the US over the same time period in terms of the number of bins returned. United Refrigeration is the only partner that appears on both the state and the national lists.

FIGURE 3.2: PARTNER LOCATIONS IN RI RETURNING MORE THAN 1 BIN PER YEAR 2012-2015

Location	2012
Petro	4
United Refrigeration	3
Bell/Simons Co	2
Sid Harvey	2
Simon's Supply Co Inc	2
Supply New England	2
Trane Parts Center	2

Location	2013
Petro	4
RISE Engineering	4
Supply New England	4
Bell / Simons Co	3
R.E. Michel	3
Sid Harvey	3
F W Webb	2
Simon's Supply Co Inc	2
United Refrigeration	2

Location	2014
RISE Engineering	8
Plumber's Supply Co.	4
R.E. Michel	3
S.G. Torrice Corp	3
Supply New England	3
RI Resource Recovery Corp	2
Santoro Oil Co.	2
United Refrigeration	2

Location	2015
RISE Engineering	13
Supply New England	3
United Refrigeration	3
Plumber's Supply	2
R.E. Michel Company, Inc.	2

PROGRAM EVALUATION

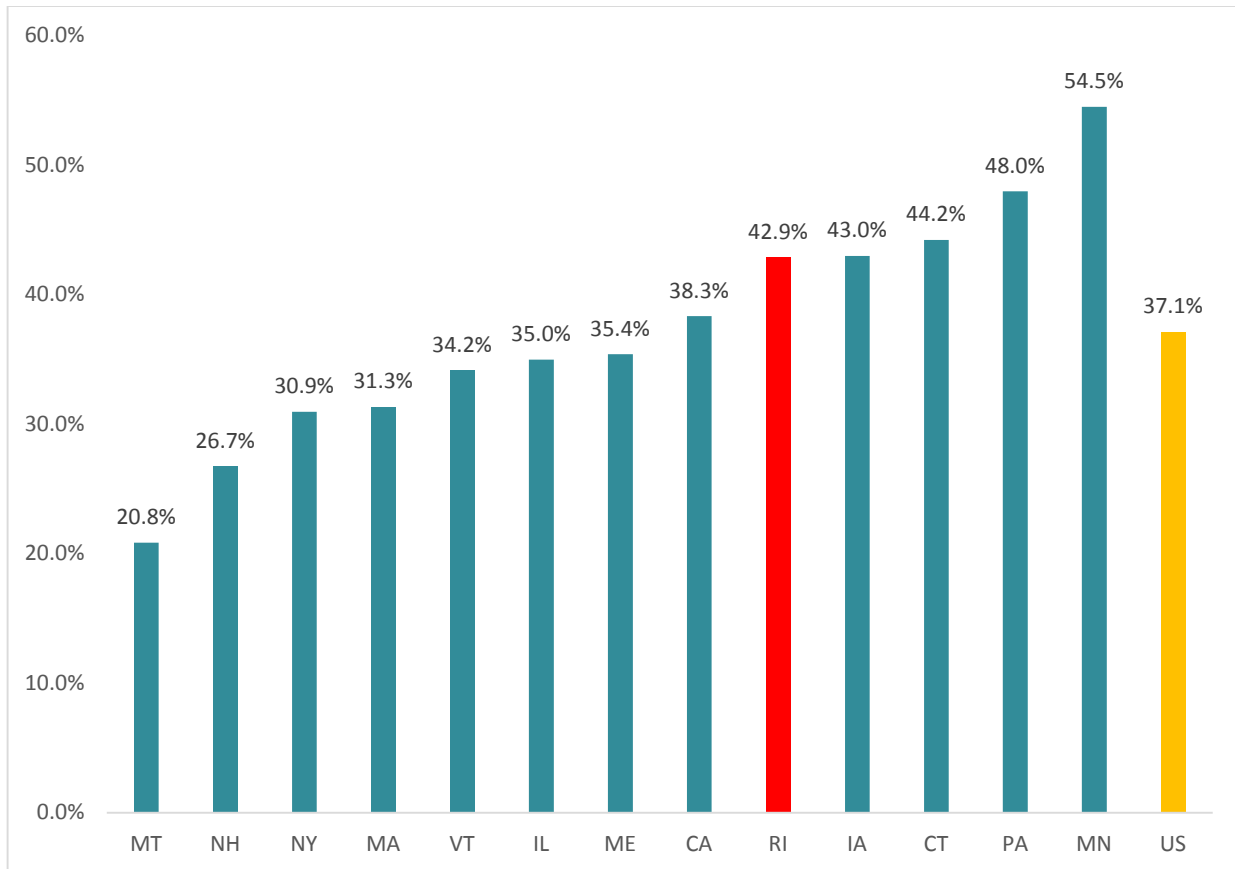
FIGURE 3.3: TOP PERFORMING PARTNER LOCATIONS NATIONWIDE IN BIN RETURNS 2012 TO 2015

Location	2012	Location	2014
R.E. Michel Company	276	R.E. Michel Company	461
Honeywell Inc.	195	Johnstone Supply	460
Johnstone Supply	176	US Air Conditioning Distributors, Inc.	127
United Refrigeration	107	Ferguson Enterprises	119
Ferguson Enterprises	94	United Refrigeration	114
Refrigeration Supplies Distributor	88	Goodman Distribution Inc.	95
Comverge	69	Honeywell Inc.	77
US Air Conditioning Distributors, Inc.	67	Gustave A Larson Company	67
Goodman Distribution Inc.	67	Refrigeration Supplies Distributor	60
Franklin Energy Services	47	Lennox Industries Inc	60
Lennox Industries Inc	45	C.C. Dickson Company	55
Location	2013	Location	2015
R.E. Michel Company	311	Johnstone Supply	519
Johnstone Supply	298	R.E. Michel Company	336
United Refrigeration	162	Ferguson Enterprises	184
Honeywell Inc.	118	United Refrigeration	176
Ferguson Enterprises	106	US Air Conditioning Distributors, Inc.	106
US Air Conditioning Distributors, Inc.	102	Goodman Distribution Inc.	70
Refrigeration Supplies Distributor	69	Gustave A Larson Company	62
Goodman Distribution Inc.	64	Refrigeration Supplies Distributor	54
Baker Distributing Company	47	Lennox Industries Inc	51
Comverge	41	Baker Distributing Company	50

Figure 3.4 displays the total percentage of locations per state and for the entire US with a bin that participated in the program in 2015 (participation is defined as sending back at least one bin). **In 2015, 42.9% of the locations in RI returned a bin compared to a national average of 37.1%.** The state with the highest percentage of locations returning a bin in 2015 was MN (54.5%).

PROGRAM EVALUATION

FIGURE 3.4: PERCENTAGE OF LOCATIONS RETURNING A BIN IN 2015



PROGRAM EVALUATION

Figure 3.5 compares the state and national rates for a number of analytics in 2015. These include: the total thermostats and bins collected, the number of collection locations in each state per 10,000 residents, the number of thermostats collected by total locations and per participating location, the number of thermostats per bin returned on average in 2015, and the number of thermostats collected in each state and the US per 10,000 residents.

FIGURE 3.5: COMPARISONS OF STATES AND US AVERAGES AMONG SEVERAL CATEGORIES

State	Total Thermostats	Total Bins	Number partner locations per 10K Res	Thermostats per total locations	Thermostats per bin (avg.)	Thermostats per location returning a bin	Thermostats per 10K residents
CA	18,260	513	0.19	25.1	35.6	65.4	4.7
CT	3,395	77	0.38	24.6	44.1	55.7	9.4
IA	2,795	63	0.39	23.1	44.4	53.8	9.0
IL	10,193	236	0.41	19.3	43.2	55.1	7.9
MA	7,881	128	0.41	28.0	61.6	89.6	11.6
ME	4,571	112	1.82	18.8	40.8	53.2	34.3
MN	9,864	127	0.26	68.0	77.7	124.9	17.9
MT	229	6	0.23	9.5	38.2	45.8	2.2
<i>NH</i>	<i>2,652</i>	<i>61</i>	<i>1.51</i>	<i>13.1</i>	<i>43.5</i>	<i>49.1</i>	<i>19.9</i>
NY	6,466	201	0.26	12.5	32.2	40.4	3.3
PA	14,338	256	0.29	38.9	56.0	81.0	11.2
RI	2,212	39	0.53	39.5	56.7	92.2	21.0
VT	2,000	83	3.22	9.9	24.1	29.0	31.9
<i>US Avg.</i>	<i>84,856</i>	<i>1902</i>	<i>0.33</i>	<i>23.9</i>	<i>44.6</i>	<i>64.3</i>	<i>7.8</i>

APPENDIX 1: OEM CLEANOUT LETTER



1765 Duke Street | Alexandria, VA 22314 | thermostat-recycle.org

July 17th, 2015



Subject: Free disposal of obsolete/New Old Stock (NOS) or waste mercury thermostats

Dear Mr. Trimbach:

Many thermostats manufactured prior to 2008 contained mercury and the sale of these devices have been banned by many states. Most distributors have written-off stranded inventory of mercury thermostats, but it has come to TRC's attention that many of these units have yet to be disposed of and may remain at either branch or central distribution locations.

Moreover, TRC routinely finds boxes or old TRC containers with waste mercury thermostats at branch locations. Federal regulations prohibit the accumulation of waste mercury thermostats for more than one year. Any waste mercury thermostats that have been at your facilities for more than one year should be shipped to TRC immediately.

Thermostat Recycling Corporation will assist you with the proper disposal of all mercury thermostats at your facilities. It costs over \$3 per pound for the proper disposal of these devices through a hazardous waste handler. Why incur these costs, when TRC will provide **FREE collection bins and pay all transportation/disposal costs to facilitate the proper disposal of these devices.**

Please review your inventory for any NOS mercury thermostats or waste mercury thermostats returned by customers at all of your facilities. Attached is a template of an internal memo to help facilitate this process. Please contact Ryan Kiscaden, TRC'S Director of National Accounts, at 571-302-0877 if you have any questions or need further assistance.

Sincere Regards,

Mark Tibbetts
Executive Director

P.S. Don't forget any mercury thermostat returned from your branches counts towards the Big Man on Planet Competition.

Enclosed: Sample Memo
 TRC Procedure
 HVAC/R Wholesaler Participation Form

APPENDIX 2: WINSUPPLY LETTER



1765 Duke Street | Alexandria, VA 22314 | thermostat-recycle.org

October 28, 2015

East Greenwich Winair Co.
ATTN: Branch Manager
289 Kilvert Street
Warwick, RI 02886

Dear Branch Manager:

I am writing you because HVAC Wholesale Distributors in the state of Rhode Island are required to act as a collection point for waste mercury thermostats. Otherwise they are prohibited from selling any thermostat. Wholesale distributor locations are bound by this law only if they sell boilers. However, all Winsupply locations should be prepared to meet their customers' needs to properly dispose of waste mercury thermostats by having a recycling bin present. Thermostat Recycling Corporation (TRC) has no record of your branch location participating in its program and as such your business may not be in compliance with Rhode Island law.

TRC is a non-profit organization funded by thermostat manufacturers. It operates the mandatory collection program in Rhode Island and provides HVAC wholesalers an easy means of complying with the law. Participating wholesale locations are provided with a plastic recycling bin to collect and transport mercury thermostats. This bin contains a liner, instructions, and a pre-paid shipping label to be used to return the bin to TRC.

All that is required from wholesale distributors is to collect waste mercury thermostats from their customers and ship the recycling bin to TRC at least once per year. They also must promote the availability of the program using the provided marketing collateral. Upon receiving the bin, TRC empties it and returns it refilled with the materials repeating the process. There are no recurring fees to participate in the program.

Many Winsupply locations nation-wide are already participating. Complete the attached form to order a container. If you reply within two weeks, TRC will waive the customer \$25.00 participation fee. TRC can be found at www.thermostat-recycle.org or please call me direct at 571-302-0877.

Looking forward to speaking,

Ryan L. Kiscaden
Director of National Accounts

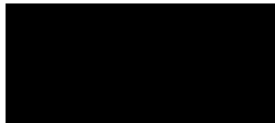
ENCLOSED:
Rhode Island State Law
HVAC/r Wholesale Participation Form

APPENDIX 3: LETTER TO CONTRACTING LOCATIONS ACCOMPANYING FREE 18X24 POSTER



1765 Duke Street | Alexandria, VA 22314 | thermostat-recycle.org

October 28, 2015



Subject: Participation in Thermostat Recycling Corporation's Program

Dear:

Thermostat Recycling Corporation (TRC) is providing you a copy of the enclosed poster in an effort to raise awareness and increase participation in TRC's stewardship program. State law requires HVAC contractors to recycle all mercury thermostats removed service. We encourage you to display this poster to remind your technicians to recycle.

The law also requires all HVAC wholesalers in the state to take mercury thermostats off your hands at no cost. So, on your next trip to your wholesaler, simply bring any mercury thermostats you've removed from service to recycle for free.

To learn more about the benefits of the program, visit www.thermostat-recycle.org.

Sincere Regards,

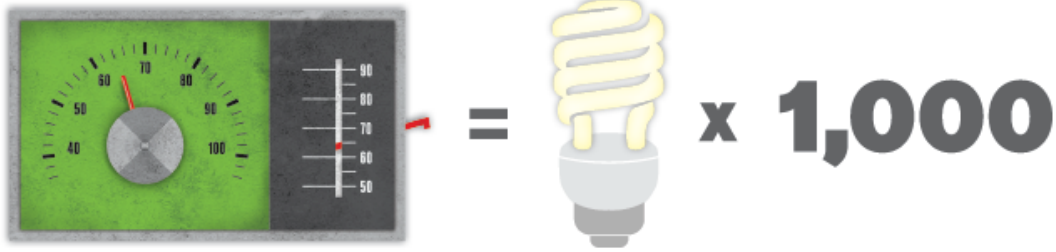
A handwritten signature in black ink that reads "Christyn Zehnder".

Christyn Zehnder
Director of Marketing

www.thermostat-recycle.org/contractor | 888-266-0550

APPENDIX 4: DECEMBER LETTER TO CONTRACTORS

Did you know?



One mercury thermostat contains approximately **1,000** times more mercury than a CFL bulb.

.....
TRC runs a program where you can recycle mercury thermostats **for free** at HVAC wholesaler locations.



TRC's program offers a free and simple way to properly dispose of mercury thermostats. Next time you visit a participating HVAC wholesaler location, bring all mercury thermostats you've accumulated to recycle.



Visit www.thermostat-recycle.org/search to see a full list of participating collection sites near you, or call TRC at **888-266-0550** with any questions.

APPENDIX 5: OESP DEDICATED EBLAST



Thermostat-Recycle.org
TRC@Thermostat-Recycle.org
1-888-266-0550

Every Thermostat, Every Time

One Mercury Thermostat Contains 1,000x More Mercury Than a CFL Bulb

Would you throw 1,000 CFL bulbs in the trash? Trashing a mercury thermostat from time to time might not seem very significant, but it is, and they add up.

Not only is it bad for the environment, but disposing of mercury thermostats in the trash is also **against the law in several states**. Regulated as hazardous waste, failure to recycle could lead to fines up to \$25,000 per violation.



Thermostat Recycling Corporation (TRC) provides an easy way for you and your employees to comply with state law by recycling mercury thermostats at participating HVAC wholesale distributors. Additionally, HVAC contractors with seven or more technicians, or operating in rural communities, are eligible to participate in TRC's program directly.

Sign up online by 10/31 and enter Promo Code OESP to receive a free recycling container that holds approximately 100 mercury thermostats and contains all necessary materials for recurring shipments to TRC at no cost to you.

Visit www.thermostat-recycle.org to learn more about how easy it is to take advantage of the program.

*Disposal bans apply in the following states: CA, CT, FL, IA, IL, ME, MA, MN, NY, NH, OR, PA, RI, and VT.

[Sign Up](#)

APPENDIX 6: CONTRACTING BUSINESS JANUARY EBLAST



Thermostat-Recycle.org
TRC@Thermostat-Recycle.org
1-888-266-0550

Free Mercury Thermostat Recycling

Stay in Compliance with State Laws

Your state prohibits the disposal of all mercury thermostats in solid waste*. Many states go further by requiring all HVAC contractors to recycle every mercury thermostat removed from service — prohibiting them to leave them at the customer's premise. **Violations can result in fines up to \$25,000 per day.**

Thermostat Recycling Corporation (TRC) offers a program to help HVAC contractors comply with the law. As a non-profit, TRC provides mercury thermostat recycling containers to your local HVAC wholesalers to collect them at no cost to you.



If you are an HVAC wholesale distributor or contracting business with seven or more technicians, you may participate directly in TRC's program by ordering a collection container. **Sign up by 2/13 and enter Promo Code CBEMAIL to receive a free recycling container** that holds approximately 100 mercury thermostats and contains all necessary materials to return the container to TRC at no cost to you.

Visit www.thermostat-recycle.org to learn more about how easy it is to take advantage of the program.

*Disposal bans apply in the following states: CA, CT, FL, IA, IL, ME, MA, MN, NY, NH, OR, PA, RI, and VT.

[Sign Up](#)

APPENDIX 7: CONTRACTING BUSINESS JUNE EBLAST



Thermostat-Recycle.org
TRC@Thermostat-Recycle.org
1-888-266-0550

Free Mercury Thermostat Recycling

Stay in Compliance with State Laws

Your state prohibits the disposal of all mercury thermostats in solid waste*. Many states go further by requiring all HVAC contractors to recycle every mercury thermostat removed from service - prohibiting them to leave them at the customer's premise. **Violations can result in fines up to \$25,000 per day.**

Each mercury thermostat contains at least 1,000 times more mercury than a CFL bulb. Would you throw 1,000 CFLs in the trash? Make sure to recycle every mercury thermostat, every time.



Thermostat Recycling Corporation (TRC) offers a program to help HVAC contractors comply with the law. The non-profit provides mercury thermostat recycling containers to your local HVAC wholesalers to collect them at no cost to you.

If you are an HVAC wholesale distributor or contracting business with seven or more technicians, you may participate directly in TRC's program by ordering a collection container. **Sign up by 6/30 and enter Promo Code CBEMAIL to receive a free recycling container** that holds approximately 100 mercury thermostats and contains all necessary materials for recurring shipments to TRC at no cost to you.

Visit www.thermostat-recycle.org to learn more about how easy it is to take advantage of the program.

*Disposal bans apply in the following states: CA, CT, FL, IA, IL, ME, MA, MN, NY, NH, OR, PA, RI, and VT.

[Sign Up](#)

APPENDIX 8: COLLECTION LOCATION PHONE CALLS

Date	Collection Location	City
4/24/2015	The Granite Group-Westerly	Westerly
4/24/2015	Supply New England Peacedale	Peacedale
4/24/2015	Viking Supply Co	Westerly
4/24/2015	Trane-East Providence	East Providence
8/7/2015	R.E. Michel Company, Inc-Providence	Providence
12/16/2015	Plumber's Supply	East Providence
12/16/2015	Santoro Oil Company	Providence
12/16/2015	Rise Engineering	Cranston

APPENDIX 9: COLLECTION LOCATION VISITS

(SORTED BY DATE VISITED, THEN ALPHABETICALLY BY CITY)

Date of visit	Collection Location	City	Zip Code	County
11/18/2015	Viking Supply Co	Westerly	02841	Newport County
11/18/2015	Supply New England	Middletown	02842	Newport County
11/18/2015	Plumbers' Supply Co. - Middletown	Middletown	02842	Newport County
11/18/2015	Homans Associates Llc	Pawtucket	02861	Providence County
11/18/2015	Delta T Distributing Warwick	Warwick	02886	Kent County
11/18/2015	Supply New England-Warwick	Warwick	02886	Kent County
11/18/2015	Carrier Enterprise-Warwick	Warwick	02886	Kent County
11/18/2015	F.W. Webb Co. - Warwick	Warwick	02888	Kent County
11/18/2015	The Granite Group-Westerly	Westerly	02891	Washington County
11/18/2015	Trane-East Providence	East Providence	02914	Providence County
11/18/2015	Robinson Plumbing & Heating Supply, Co	Cranston	02920	Providence County
11/19/2015	Smithfield Plumbing & Heating Supply	Greenville	02828	Providence County
11/19/2015	Simon'S Supply Co Inc-Pawtucket	Pawtucket	02861	Providence County
11/19/2015	GEM Plumbing & Heating	Lincoln	02865	Providence County
11/19/2015	Automatic Heating Equipment	Providence	02904	Providence County
11/19/2015	Johnstone Supply-Providence	Providence	02907	Providence County
11/19/2015	Furnace & Duct Supply Co. Inc.	Providence	02907	Providence County
11/19/2015	R.E. Michel Company, Inc-Providence 2	Providence	02907	Providence County
11/19/2015	Cohen Heating Supply Company	Providence	02908	Providence County
11/19/2015	Cohen Heating Supply Company	Providence	02908	Providence County
11/19/2015	Cohen Heating Supply Company	Providence	02908	Providence County
11/19/2015	Ardente Supply Co Inc.	Providence	02908	Providence County

APPENDIX 10: 2015 BIN RECEIPT REPORT

(SORTED ALPHABETICALLY BY CITY)

Bin Number	Date Returned	Collection Location Name	City	Zip	Type	Loose Switches	Total Stats	Total Volume
M16235	11/24/15	ROBINSON PLUMBING & HEATING SUPPLY, CO	CRANSTON	02920	Wholesalers	37	35	0.2294
M12751	11/19/15	RISE Engineering	Cranston	02910	Contractor	117	106	0.7254
M17381	11/19/15	RISE Engineering	Cranston	02910	Contractor	115	115	0.713
M17389	11/9/15	RISE Engineering	Cranston	02910	Contractor	59	29	0.3658
M17999	9/28/15	RISE Engineering	Cranston	02910	Contractor	86	86	0.5332
M17381	9/24/15	RISE Engineering	Cranston	02910	Contractor	157	157	0.9734
M17389	9/24/15	RISE Engineering	Cranston	02910	Contractor	94	94	0.5828
M17998	9/2/15	RISE Engineering	Cranston	02910	Contractor	149	149	0.9238
M17389	8/20/15	RISE Engineering	Cranston	02910	Contractor	96	96	0.5952
M17389	6/9/15	RISE Engineering	Cranston	02910	Contractor	63	63	0.3906
M17998	3/27/15	RISE Engineering	Cranston	02910	Contractor	84	47	0.5208
M17999	3/26/15	RISE Engineering	Cranston	02910	Contractor	149	148	0.9238
M17381	2/5/15	RISE Engineering	Cranston	02910	Contractor	81	81	0.5022
M15727	12/29/15	Plumber's Supply	East Providence	02914	Wholesalers	21	21	0.1302
M16055	5/29/15	TRANE	EAST PROVIDENCE	02914	Wholesalers	65	27	0.403
M15114	4/2/15	H.V. Holland, Inc.	Jamestown	02835	Contractor	3	3	0.0186
M15728	11/25/15	Plumber Supply Co	Middletown	02842	Wholesalers	64	41	0.3968
M15734	11/24/15	SUPPLY NEW ENGLAND	MIDDLETOWN	02842	Wholesalers	5	5	0.031
M15746	12/3/15	SIMON'S SUPPLY CO INC	PAWTUCKET	02861	Wholesalers	54	53	0.3348
M15732	6/10/15	SUPPLY NEW ENGLAND	PAWTUCKET	02860	Wholesalers	9	9	0.0558

APPENDIX 10: 2015 BIN RECEIPT REPORT

(SORTED ALPHABETICALLY BY CITY)

M15967	12/2/15	AUTOMATIC HEATING EQUIPMENT	PROVIDENCE	02904	Wholesalers	14	13	0.0868
M15736	11/30/15	FURNACE & DUCT SUPPLY CO. INC.	PROVIDENCE	02907	Wholesalers	3	3	0.0186
M12746	11/25/15	JOHNSTONE SUPPLY CO	Providence	02907	Wholesalers	55	43	0.341
M19063	11/25/15	The Portland Group	Providence	02909	Wholesalers	46	45	0.2852
M15942	11/2/15	S. G. TORRICE CORP	PROVIDENCE	02907	Wholesalers	124	33	0.7688
M15931	10/30/15	UNITED REFRIGERATION INC	PROVIDENCE	02905	Wholesalers	49	27	0.3038
M15151	9/18/15	SID HARVEY INDUSTRIES	PROVIDENCE	02903	Wholesalers	84	82	0.5208
M15159	8/5/15	JOHN F. WHITE & CO. - CLOSED	PROVIDENCE	02907	Wholesalers	157	84	0.9734
M13175	7/20/15	R.E. MICHEL COMPANY, INC	PROVIDENCE	02907	Wholesalers	119	110	0.7378
M15931	6/30/15	UNITED REFRIGERATION INC	PROVIDENCE	02905	Wholesalers	59	32	0.3658
M15931	5/13/15	UNITED REFRIGERATION INC	PROVIDENCE	02905	Wholesalers	46	20	0.2852
M13281	3/12/15	BELL SIMONS CO	PROVIDENCE	02904	Wholesalers	21	15	0.1302
M13175	1/27/15	R.E. MICHEL COMPANY, INC	PROVIDENCE	02907	Wholesalers	120	108	0.744
M17243	10/29/15	Petro	Tiverton	02878	Contractor	126	116	0.7812
M11533	11/25/15	DELTA T DISTRIBUTING PROVIDENCE	Warwick	02886	Wholesalers	10	10	0.062
M15731	11/25/15	SUPPLY NEW ENGLAND	WARWICK	02886	Wholesalers	12	12	0.0744
M15930	11/25/15	F. W. WEBB CO	WARWICK	02888	Wholesalers	142	92	0.8804
M17667	11/24/15	Carrier Enterprise	Warwick	02886	Wholesalers	2	2	0.0124

APPENDIX 11: THERMOSTATS RETURNED BY COLLECTION LOCATION

(SORTED ALPHABETICALLY BY BUSINESS TYPE, THEN CITY)

Business Type	Collection Location Name	Street 1	City	Zip	Phone	# of Bins at End of Report Date	Date Last Bin Received	Total Stats	Total Switches	Total Hg
Contractor	Stedman & Kazounis Plumbing & Heating Co Inc	10 Crossland	Charlestown	02813	401-364-9888	2		0	0	0.00
Contractor	Rise Engineering	1341 Elmwood Avenue	Cranston	02910	401-784-3700	5	11/19/2015	1,171	1,250	7.75
Contractor	Woods Heating	22 Almeida Avenue	East Providence	02914	401-434-1487	1		0	0	0.00
Contractor	H.V. Holland, Inc.	2 Hammett Court	Jamestown	02835	401-423-0614	1	04/02/2015	3	3	0.02
Contractor	Gem Plumbing & Heating	1 Wellington Road	Lincoln	02865	401-459-4874	4		0	0	0.00
Contractor	Buckley Heating & Cooling	1632 Kingstown Road	Peace Dale	02879	401-789-9711	1		0	0	0.00
Contractor	R.B. Queern & Co., Inc.	200 High Point Avenue	Portsmouth	02871	401-849-0095	1		0	0	0.00
Contractor	Santoro Oil Co.	101 Corliss St	Providence	02904		9		0	0	0.00
Contractor	Carjon Air Conditioning & Heating	4 Enterprise Lane	Smithfield	02917		1		0	0	0.00
Contractor	Petro	550 Fish Road	Tiverton	02878	401-621-5114	2	10/29/2015	116	126	0.78
Contractor	Petro	141 Knight Street	Warwick	02886	401-732-0137	3		0	0	0.00
Contractor	Kafin Oil Company	22 Hamlet Avenue	Woonsocket	02895	401-765-3881	1		0	0	0.00
Contractor	Petro Holdings Inc.	1182 River Street	Woonsocket	02895	401-767-0400	3		0	0	0.00
HHW Facility	Rhode Island Resource	54 Shun Pike	Johnston	02919	401-942-1430	3		0	0	0.00

APPENDIX 11: THERMOSTATS RETURNED BY COLLECTION LOCATION

(SORTED ALPHABETICALLY BY BUSINESS TYPE, THEN CITY)

	Recovery Corp. Eco-Depot									
Wholesaler	Superior Comfort Inc.	257 Franklin Street	Bristol	02809	401-396-9171	1		0	0	0.00
Wholesaler	Atlantic Supply	1000 Tiogue Ave	Coventry	02816	401-823-0800	1		0	0	0.00
Wholesaler	Bell Simons Co	90 Kenwood Street	Cranston	02907	401-944-0200	1		0	0	0.00
Wholesaler	Robinson Plumbing & Heating Supply, Co	1 Freeway Drive	Cranston	02920	401-467-0200 EXT. 12	1	11/24/2015	35	37	0.23
Wholesaler	Plumber's Supply	41 Commercial Way	East Providence	02914	401-431-0800	2	12/29/2015	21	21	0.13
Wholesaler	Trane	50 Vision Blvd.	East Providence	02914	401 434 3145	2	05/29/2015	27	65	0.40
Wholesaler	Smithfield Plumbing & Heating Supply	1 Austin Ave.	Greenville	02828	401-949-0110	1		0	0	0.00
Wholesaler	Plumber Supply Co	305 Oliphant Ln	Middletown	02842		1	11/25/2015	41	64	0.40
Wholesaler	Supply New England	119 Oliphant Lane	Middletown	02842	401-846-6830	1	11/24/2015	5	5	0.03
Wholesaler	Homans Associates Llc	203 Concord Street Suite 431	Pawtucket	02861	401-726-9300	2		0	0	0.00
Wholesaler	Simon's Supply Co Inc	19 Slade Street	Pawtucket	02861	401 722 0200	1	12/03/2015	53	54	0.33
Wholesaler	Supply New England	273 Lonsdale Ave.	Pawtucket	02860	401-722-7010	1	06/10/2015	9	9	0.06
Wholesaler	Supply New England	1425 Kingstown Rd.	Peacedale	02883	401-789-0991	1		0	0	0.00
Wholesaler	Ardente Supply Co Inc.	404 Valley Street	Providence	02908	401-861-1324	4		0	0	0.00
Wholesaler	Automatic Heating Equipment	400 Charles St	Providence	02904	401 521-8877	1	12/02/2015	13	14	0.09
Wholesaler	Bell Simons Co	101 Printery Street	Providence	02904	401-274-4180	1	03/12/2015	15	21	0.13
Wholesaler	Cohen Heating Supply Company	38 Bath Street	Providence	02908	401-751-7200	1		0	0	0.00

APPENDIX 11: THERMOSTATS RETURNED BY COLLECTION LOCATION

(SORTED ALPHABETICALLY BY BUSINESS TYPE, THEN CITY)

Wholesaler	Furnace & Duct Supply Co. Inc.	635 Elmwood Ave.	Providence	02907	401-941-3800	2	11/30/2015	3	3	0.02
Wholesaler	John F. White & Co	31 Narragansett Ave.	Providence	02907	401-461-3333	1	08/05/2015	84	157	0.97
Wholesaler	Johnstone Supply Co	50 Niantic Ave	Providence	02907	401-946-9444	1	11/25/2015	43	55	0.34
Wholesaler	R.E. Michel Company, Inc	124 Narragansett Ave	Providence	02907	401-461-1117	10	7/20/2015	218	239	1.48
Wholesaler	S. G. Torrice Corp	300 Niantic Ave	Providence	02907	401-490-4425	1	11/02/2015	33	124	0.77
Wholesaler	Sid Harvey Industries	89 Corliss St	Providence	02903	401-521-9332	1	09/18/2015	82	84	0.52
Wholesaler	The Portland Group	333-339 Harris Avenue	Providence	02909	401-273-3044	1	11/25/2015	45	46	0.29
Wholesaler	United Refrigeration Inc	185 Toronto Avenue	Providence	02905	401-467-3600	1	10/30/2015	79	154	0.95
Wholesaler	Carrier Enterprise	33 Plan Way Bldg 1	Warwick	02886	401-732-7090	1	11/24/2015	2	2	0.01
Wholesaler	Delta T Distributing Providence	56 Dewey Avenue	Warwick	02886	401-861-1776	1	11/25/2015	10	10	0.06
Wholesaler	East Greenwich Winair Co.	289 Kilvert Street	Warwick	02886	4017321585	1		0	0	0.00
Wholesaler	F. W. Webb Co	101 Jefferson Blvd	Warwick	02888	401-463-8339	1	11/25/2015	92	142	0.88
Wholesaler	Supply New England	361 Jefferson Blvd.	Warwick	02886	401-739-8000	1	11/25/2015	12	12	0.07
Wholesaler	The Granite Group	114 Cross Street	Westerly	02891	401-596-7775	1		0	0	0.00
Wholesaler	Viking Supply Co	36 Friendship Street	Westerly	02841	401-348-9220	1		0	0	0.00

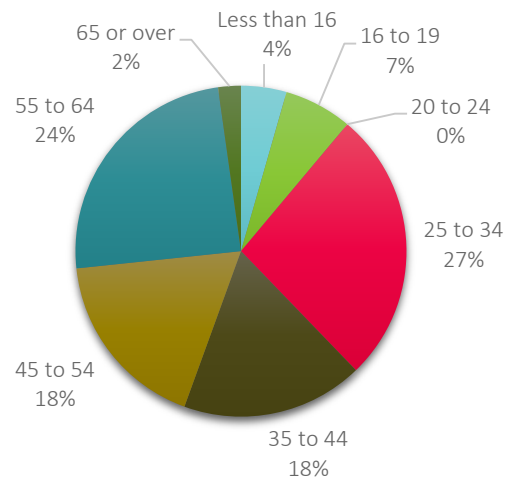
APPENDIX 12: TECHNICIAN SURVEY RAW RESULTS

DEMOGRAPHIC

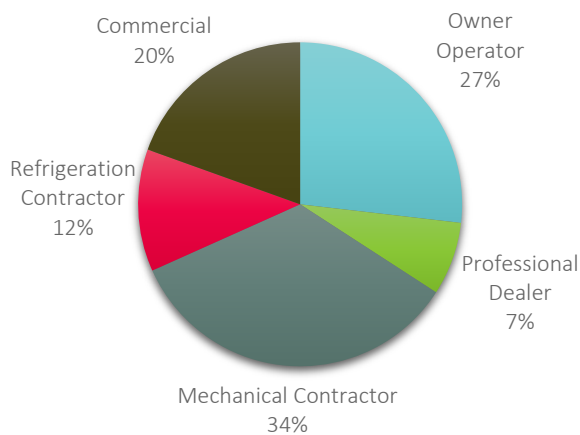
What is your gender?



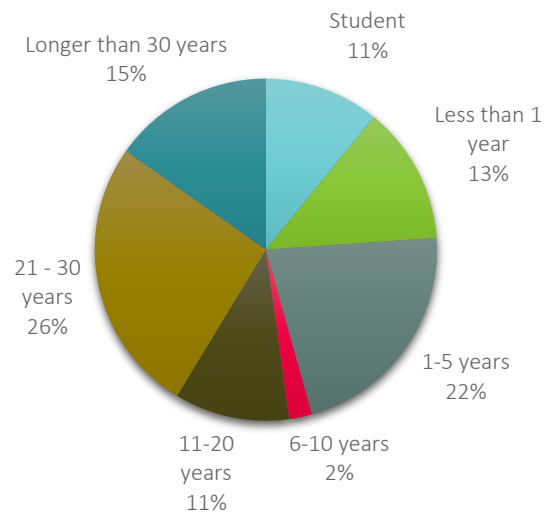
What is your current age?
(U.S. Census)



What is the nature of your business?



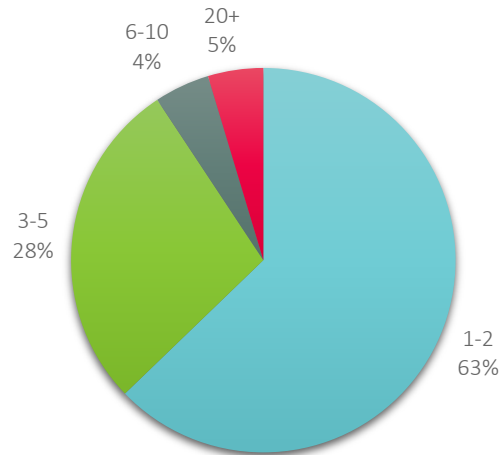
How long have you worked as a technician/contractor?



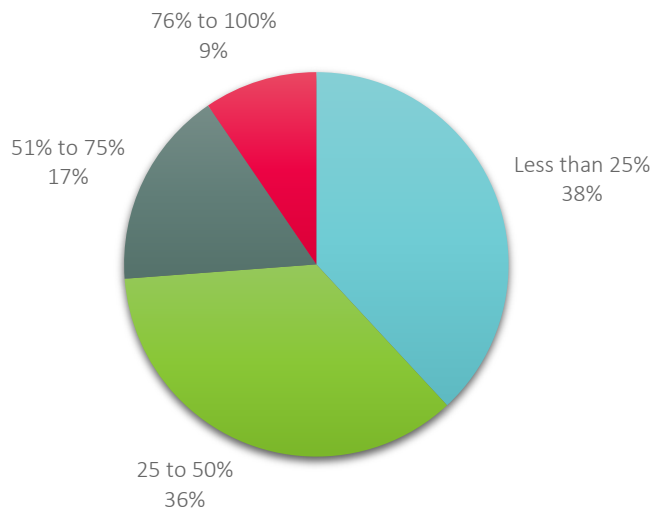
APPENDIX 12: TECHNICIAN SURVEY RAW RESULTS

THERMOSTAT REPLACEMENT

How many thermostats do you remove/replace in an average week as part of your job?



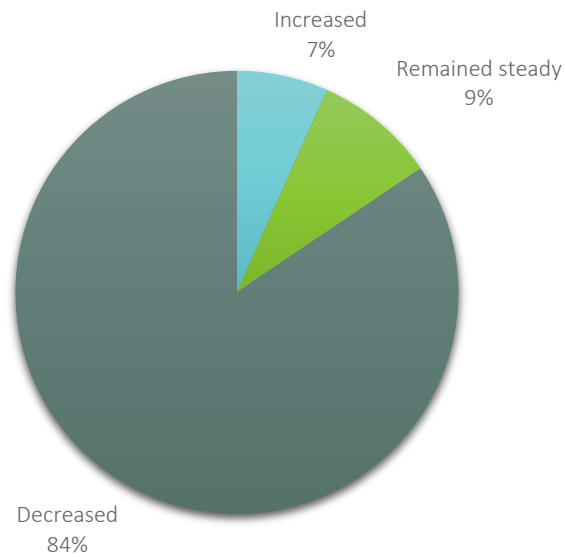
What percentage of the thermostats you replaced in 2014 would you estimate contained mercury?



APPENDIX 12: TECHNICIAN SURVEY RAW RESULTS

MERCURY CONTAINING THERMOSTAT PREVALENCE

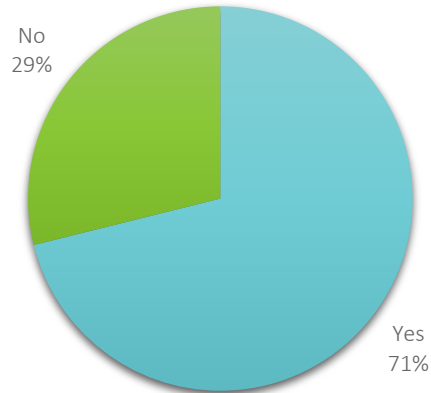
Would you say that during the time you have worked as a technician/contractor the number of mercury containing thermostats you see has...



APPENDIX 12: TECHNICIAN SURVEY RAW RESULTS

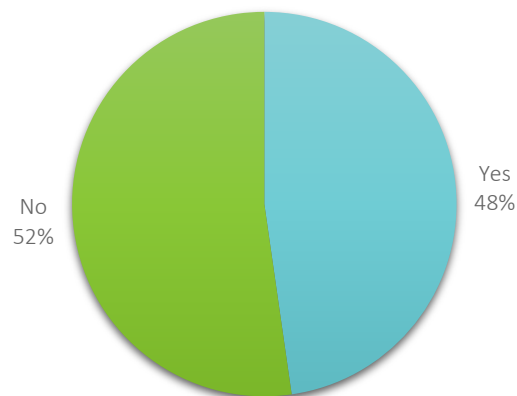
EMPLOYER POLICIES

Are you required by your employer to recycle mercury containing thermostats?



INCENTIVES

To your knowledge, are there any incentives provided by utilities (eg. energy companies) to encourage recycling of thermostats?

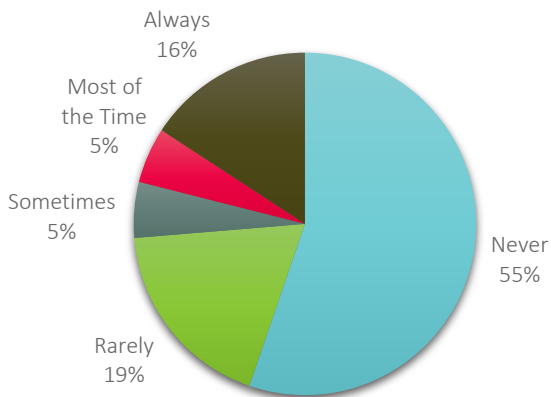


APPENDIX 12: TECHNICIAN SURVEY RAW RESULTS

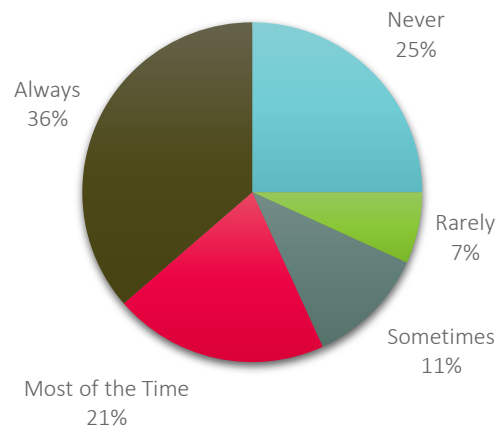
DISPOSAL

Where do you dispose of the mercury containing thermostats you collect?

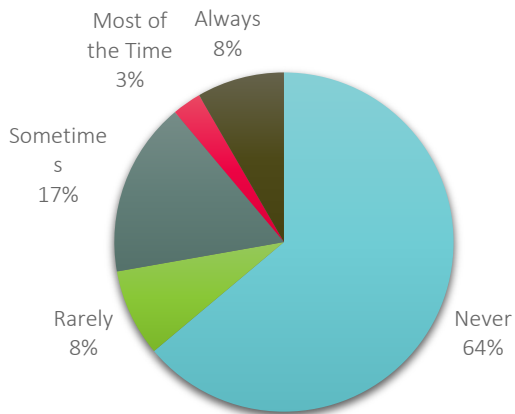
Company/office



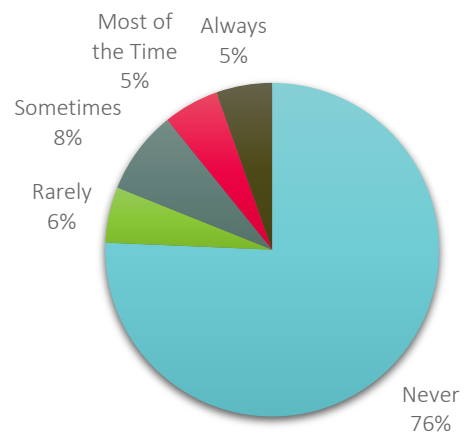
Wholesaler/Supply House



Hardware Store



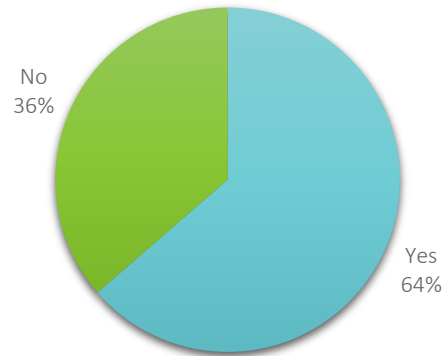
Trash



APPENDIX 12: TECHNICIAN SURVEY RAW RESULTS

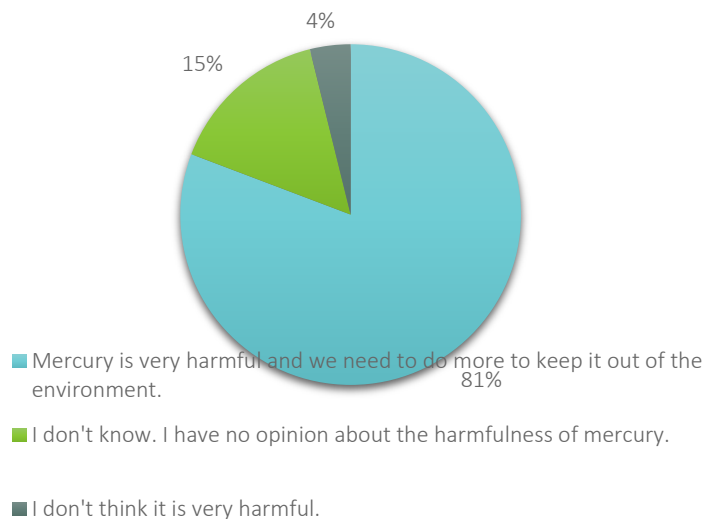
GREEN BIN UTILIZATION

If you recycle thermostats, do you recycle them in a green bin?



MERCURY HARMFULNESS

Which of the following statements best reflects your personal opinion of the harmfulness of mercury?



APPENDIX 13: CONTRACTOR COMPLIANCE POLICY

HVAC Contractor Employee Compliance Policy – MERCURY THERMOSTAT DISPOSAL

Company Name

Mercury Thermostat Disposal Overview

It is **XXX**'s policy to be an environmentally conscious company while complying with all state and federal regulations. As such, **XXX** will make every effort to educate both our customers and employees on the regulations pursuant to **Section XXX** of the **NAME OF BILL** and **description of the bill**. This education will include the risks and dangers associated with mercury pollution into the environment along with any regulatory, legal and/or business obligations or responsibilities related to the recycling of mercury thermostats.

XXX will comply with all regulations and industry requirements concerning the safe disposal of mercury thermostats. Further, it is the responsibility of the company and each employee who, as a matter of course, deals with mercury thermostats and/or customers, to be aware of this policy and the associated legal requirements.

It is the responsibility of each **XXX** employee to be aware of the information regarding disposal of mercury thermostats to the extent necessary to perform his or her duties in an environmentally sensitive nature and to explain to our customers what we are doing to prevent the improper disposal of mercury thermostats.

Background on Mercury Thermostats

Health/Safety Concerns: Mercury is a neurotoxin which has both negative impacts on human and ecological populations. The toxicity is fatal if inhaled, consumed, or exposed into the blood stream. It may also damage fertility or an unborn child. Mercury can also cause damage to organs through prolonged or repeated exposures.

Mercury Thermostat Sources: Mercury thermostats were first manufactured and sold starting in 1956 and began a final cease in production around 2006. As mercury thermostats are replaced, the available inventory to recycle diminishes until eventually all in-service thermostats are upgraded to a mercury free control device. While estimates vary, there were millions of mercury thermostats sold in the United States.

These units still remain in service in the following types of facilities;

- Residential single family homes either in attached, detached, or semi-attached
- Residential multifamily homes such as apartments or low income housing
- Light commercial buildings such as hotels, restaurants, banks, and retail
- Educational buildings such as schools, colleges, and museums
- Military building such as barracks

When a mercury thermostat is discovered during the direct installation of replacement thermostats, **XXX** Proper Disposal Policy will be followed. If it is deemed that the Proper

APPENDIX 13: CONTRACTOR COMPLIANCE POLICY

HVAC Contractor Employee Compliance Policy – MERCURY THERMOSTAT DISPOSAL

Disposal Policy is insufficient, XXX will contact the Thermostat Recycling Corporation (TRC) on guidance on how to properly dispose of mercury thermostats¹.

Regulatory History

U.S. Federal Rules and Regulations

The Resource Conservation and Recovery Act (RCRA)² was enacted in 1976 to protect human health and the environment from the potential hazards of waste disposal, to conserve energy and natural resources, to reduce the amount of waste generated, and to ensure that wastes are managed in an environmentally sound manner.

The Universal Waste Rule within RCRA is designed to reduce the amount of hazardous waste items in municipal solid waste stream, encourage recycling and proper disposal of certain common hazardous wastes, and reduce the regulatory burden on businesses that generate these wastes. Universal wastes includes mercury thermostats that contain as much as 3 grams of liquid mercury and are located in almost any building, including commercial, industrial, agricultural, community, and household buildings.

State Rules and Regulations

Many states regulate the installation, disposal and sale of mercury bearing equipment such as mercury thermostats, with varying requirements and methods of compliance for contractors and distributors. In many states enforcement authority is granted through the state's EPA.

When XXX has a job where the customer's address is located in any of the following states; CA, CT, FL, IL, IA, LA, ME, MD, MA, MI, MN, MT, NH, NY, OH, OR, PA, RI, VT, and WA XXX's employees will follow the Proper Disposal Procedure. See Appendix 2 for chart.

¹ For a one-time fee of \$25.00 participating locations are provided with a reusable plastic recycling container, a 5mil plastic liner, and wire zip ties to seal the liner and the bin for transport. Each container also comes with a pre-paid Federal Express label to return the container to TRC. The container will hold up to 150 waste mercury thermostats. A participating location simply needs to accumulate waste mercury thermostats for up to one year, prepare the container for shipment, and arrange pick-up with carrier. TRC is an automatic return program, and the same container will be returned to the location within 10 business days, restarting the process. The TRC program operates under Universal Waste Regulations and there is no requirement to manifest to maintain records of shipments. TRC only accepts whole mercury thermostats. No other item, particularly mercury containing items, can be stored or shipped in the TRC container. TRC reserves the right to terminate participation if a collection location ships items other than whole mercury thermostats.

² <http://www2.epa.gov/rcra>

APPENDIX 13: CONTRACTOR COMPLIANCE POLICY

HVAC Contractor Employee Compliance Policy – MERCURY THERMOSTAT DISPOSAL

XXX Proper Disposal Procedure

To be compliant with this proper disposal of mercury thermostats procedure, **XXX** will take the following actions to ensure effective monitoring and assessment of compliance:

- **XXX** will assign an employee to oversee compliance including but not limited to: owners, service managers, service technicians, and any and all employees whom generate mercury thermostat waste. This employee will be assigned the responsibility of record keeping (if necessary) and ensuring compliance by all **XXX**'s employees.
- Commit (1) hour of employee training on what a mercury thermostat is and how to dispose of them properly following federal, state, and local regulations. Visit www.thermostat-recycle.org with questions.
- Require each new employee who generates mercury thermostat waste to order a mercury spill kit as a condition of employment or **XXX** will provide each new employee a mercury spill kit upon employment, and replace it when necessary.
- Create a working environment in which employees can report violations of the Proper Disposal Procedure.
- Consider direct participation with TRC when the Proper Disposal Procedure is insufficient. **XXX** may consider ordering a mercury thermostat recycling container for each shop, work van/truck, or employee as necessary³.

As per this policy, the employee will do the following; **See Appendix 3 for flow chart.**

1. Sign the Employee Compliance Policy herein.
2. Remove the mercury thermostat during work order
3. Place the mercury thermostat in a 5 gallon bucket with a lid
4. Locate the closest collection point to job site
5. Drop off mercury thermostat at collection point as soon as convenient
6. Repeat as necessary

³ <http://www.thermostat-recycle.org/signup/>

APPENDIX 13: CONTRACTOR COMPLIANCE POLICY

HVAC Contractor Employee Compliance Policy – MERCURY THERMOSTAT DISPOSAL

Appendix 1 – Employee Proper Disposal Compliance Policy Form

XXX Section XXX of the XXX of XXX **Employee Proper Disposal Compliance Policy**

It is the policy of XXX to strictly adhere to XXX of the XXX of XXX.

Employee compliance, as required by law, is required.

Therefore, as the undersigned, I agree to fully comply with this policy which includes properly disposing of all mercury thermostats I generate and to use the prescribed method of disposal set forth by **Company Name**. I also agree to **NEVER** intentionally dispose of mercury thermostats and to not leave the device(s) behind with the customer.

Should I fail to comply with the foregoing statements, I understand that I am in non-compliance with the law and accept full personal liability in connection with any action or actions that may occur.

Signed this _____ day of _____, 20__

By: _____ (Print Name)

_____ (Sign Name)

APPENDIX 13: CONTRACTOR COMPLIANCE POLICY

HVAC Contractor Employee Compliance Policy – MERCURY THERMOSTAT DISPOSAL

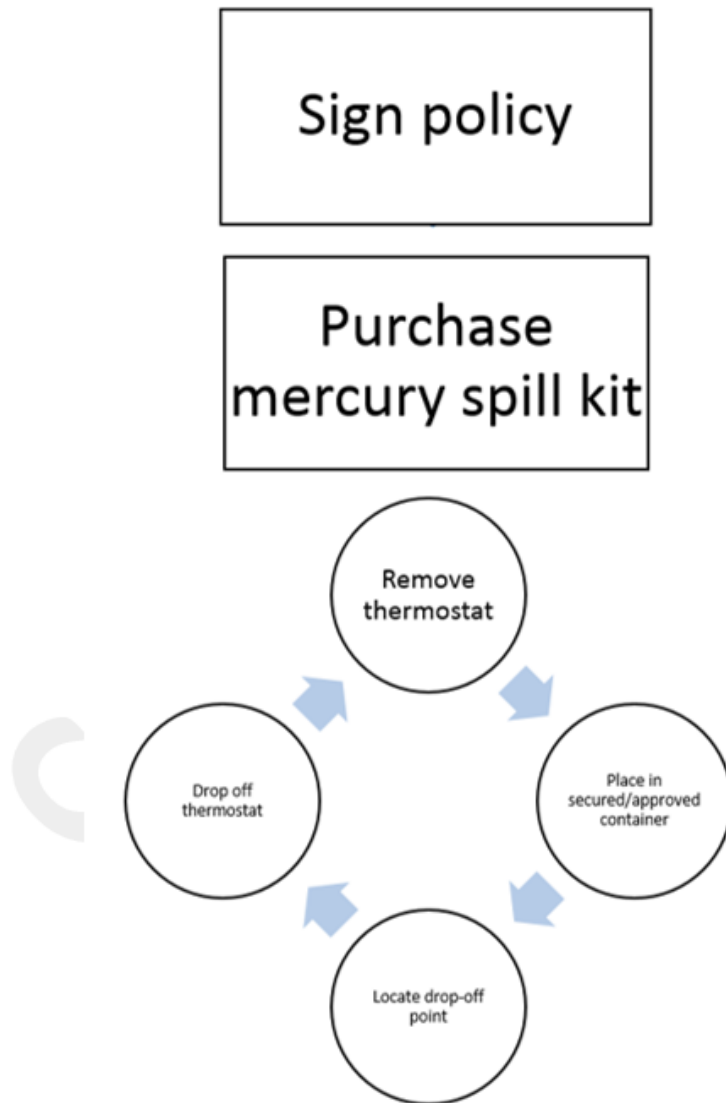
Appendix 2 - Table with state specific legislation

State	Sales Ban	Installation Ban	Disposal Ban	Mandatory Wholesale Distributor Collection	Mandatory Contractor Recycling
<i>California</i>	X	X	X	X	X
<i>Connecticut</i>	X		X	X	X
<i>Florida</i>	X	X	X		
<i>Illinois</i>	X	X	X	X	X
<i>Iowa</i>	X	X	X	X	X
<i>Louisiana</i>			X		
<i>Maine</i>	X		X	X	X
<i>Maryland</i>	X				
<i>Massachusetts</i>	X		X	X	X
<i>Michigan</i>	X				
<i>Minnesota</i>	X		X		X
<i>Montana</i>	X	X		X	
<i>New Hampshire</i>	X	X	X	X	X
<i>New York</i>	X		X	X	X
<i>Ohio</i>	X				
<i>Oregon</i>	X	X	X		X
<i>Pennsylvania</i>	X		X	X	X
<i>Rhode Island</i>	X		X	X	X
<i>Vermont</i>	X		X	X	X
<i>Washington</i>	X				

APPENDIX 13: CONTRACTOR COMPLIANCE POLICY

HVAC Contractor Employee Compliance Policy – MERCURY THERMOSTAT DISPOSAL

Appendix 3 – Proper Disposal Procedure Flow Chart



APPENDIX 14: SAMPLE UTILITY IMPLEMENTER RFP REQUIREMENTS

Standard RFP Language for Management of Waste Mercury Thermostats Generated through direct installation (DI) of thermostats or HVAC Equipment

Background

Mercury thermostats were widely used to control heating and cooling systems starting in the 1950s. Mercury thermostats dominated the market until the early 1990s when electronic thermostats began to gain wider acceptance in the market. All major manufacturers ceased production of mercury switch thermostats by 2009. While the number remaining in use is unknown, they are still found on some heating and cooling systems installed prior to 2006.

Mercury thermostats are still prevalent in the following types of facilities;

- Residential single family homes - either attached, detached, or semi-attached
- Residential multifamily homes such as apartments or low income housing structures
- Light commercial buildings such as hotels, restaurants, banks, and retail outlets
- Educational buildings such as schools, colleges, and libraries
- Barracks and other military installations

Statutory Authorities

Title 21 Section 27-2105 of New York Environmental Conservation Law (ECL) prohibits knowing disposal of mercury thermostats in solid waste and waste mercury thermostats can be managed as “Universal Wastes” under the Federal Resource Recovery and Conservation Act (40 CFR Part 273)

Title 29, Section 27-2909 of ECL also requires the following:

APPENDIX 14: SAMPLE UTILITY IMPLEMENTER RFP REQUIREMENTS

§ 3. 1. Any person or contractor who replaces a mercury-containing thermostat from a building shall deliver the mercury-containing thermostat to an appropriate collection site.

And:

3. Any department, authority, instrumentality, or municipal corporation of the state administering a program that involves the removal or replacement of mercury containing thermostats as a result of any statutory requirement, shall inform contractors of their statutory obligations to deliver the mercury-containing thermostats to a collection site and prohibiting the disposal of such thermostats in a solid-waste facility.

4. Any contractor, organization or subcontractor of such organization, who contracts with or receives funding or financing provided in whole or in part by or through any department, agency, instrumentality, or political subdivision of the state for the installation, service, or removal of heating, ventilation, or air-conditioning components resulting in the removal or handling of out-of-service mercury thermostats, shall ensure the collection, transportation and proper management of out-of-service mercury thermostats in accordance with the provisions of title 29 of article 27 of the environmental conservation law.

RFP Language

The vendor, all subcontractors, and affiliated parties in the trade channel including but not limited to trade allies, preferred installation vendors or rebate processors must comply with all applicable federal, state, local regulations in relation to the proper management and disposal of waste mercury thermostats generated in the performance of the requested scope of work. The vendor will describe efforts to inform program subcontractors and affiliated parties in the trade channel including but not limited to trade allies, preferred installation vendors or rebate processors on New York law relative to the removal and disposal of mercury thermostats. The vendor should also describe any planned steps to support and/or facilitate the collection of mercury thermostats generated through this program by direct participation in the TRC program. The vendor will describe procedures

APPENDIX 14: SAMPLE UTILITY IMPLEMENTER RFP REQUIREMENTS

all technicians (direct installers) will follow to identify mercury thermostats and ensure proper management of all mercury thermostats removed from service. The vendor will also describe the procedures to monitor and document (report) compliance with the above requirement and for meeting post project reporting requirements below. The successful vendor may be required to provide more information to verify its compliance with above requirement which will include at a minimum;

- A post project report of the following information;
 - Total number of thermostats installed
 - The number of mercury thermostats removed from service
 - The number of mercury thermostats recycled and the location(s) where the thermostats were recycled.