

VIA EMAIL and US Mail

March 29, 2016

Ms. Theresa Stiner
Land Quality Bureau
Iowa Department of Natural Resources
502 E 9th Street 502, Wallace Building
Des Moines, IA 50319-0034

Subject: Thermostat Recycling Corporation's 2015 Annual Report

Dear Ms. Stiner:

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 in Iowa:

- The program collected **2,795 thermostats in 2015**. This was a 3% decrease compared to the number of thermostats collected in 2014.
- In 2015 the program **collected 21.35 pounds of mercury** in the state of Iowa. Since 1998, the annual pounds of mercury collected in Iowa has increased by an average of 48% per year. During the same time period, the pounds of mercury collected in the nation increased by 21% per year.
- TRC's website traffic continued to increase in 2015. There was a **92% increase of visitors** from Iowa while TRC increased its total annual visitors by **71% compared to 2014**.
- The counties with the most bins returned in 2015 were **Polk** (14 bins), **Black Hawk** (11 bins), and **Scott** (8 bins).

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



Thermostat Recycling
CORPORATION

an industry-funded non-profit

IOWA STATE ANNUAL REPORT

FY 2015

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COLLECTION DATA

In 2015, TRC recovered 21.35 pounds of mercury from the equivalent of 2,850 mercury thermostats. A total of 2,795 intact mercury thermostats and 3,443 mercury thermostat switches were recovered from Iowa collection locations in 2015 (mercury thermostats recovered from Iowa locations averaged 1.21 switches per thermostat in 2015).

TRC recovered 81% of mercury thermostats from HVAC wholesale distributor collection locations, 11% from household hazardous waste (HHW) facilities, and 8% from contractor locations.

EXHIBIT 1: 2015 IOWA COLLECTIONS BY BRAND

Brand Holder	Thermostats	Count Switches	Pounds Mercury
Burnham Holdings	1	2	0.01
Carrier	19	25	0.16
Climate Master	2	4	0.02
General Electric Corporation	19	48	0.30
Goodman Global	23	25	0.16
Honeywell	2162	2620	16.24
Invensys	16	16	0.10
Lear Siegler	7	8	0.05
Lennox	93	115	0.71
Lux Products	5	5	0.03
Marley-Wylain Company	1	1	0.01
McQuay International	1	2	0.01
Nordyne Corporation	1	4	0.02
Rheem	14	14	0.09
Sears Holdings	12	13	0.08
Trane	127	163	1.01
White Rogers	266	281	1.74
York/Johnson Controls	11	13	0.08
----- Non-Member Brands -----			
ces	1	2	0.01
DOLE	7	7	0.04
Green Colonial	3	3	0.02
heatwave	1	1	0.01
mueller	1	1	0.01
Singer	1	1	0.01
TETCO	1	2	0.01
----- NOM (Manufacturer not Identifiable) -----			
NOM	0	0	0
Loose Bulbs	0	67	0.42
TOTAL	2,795	3,443	21.35

COLLECTION DATA

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

COLLECTION DATA

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

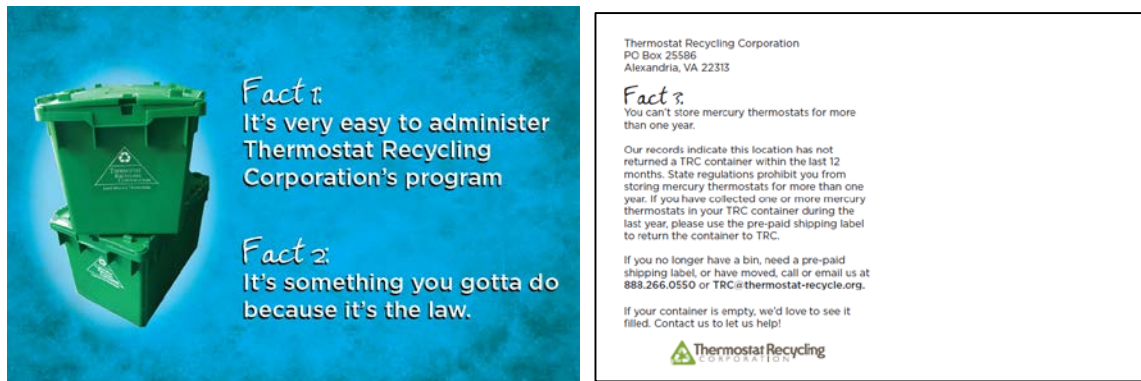
TRC utilized direct mail throughout the year to target collection locations, HVAC contractors/technicians, and household hazardous waste (HHW) facilities.

TRC Collection Locations

- 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 Universal Waste Regulations). TRC mailed 64 reminders in April, 64 in August, and 56 in November.
- On 7/17 TRC mailed a letter to six Heating, Air-conditioning & Refrigeration Distributors International (HARDI) member CEOs with location branches in Iowa. 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 six Winsupply wholesale locations without TRC bins in the state of Iowa. 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. TRC received one bin order response as a result of this letter. (Appendix 2)

PROGRAM EDUCATION AND OUTREACH

EXHIBIT 2: REMINDER POSTCARD



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 96 HVAC contracting business contacts with 10 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 December TRC mailed a full color letter to 96 HVAC contracting business contacts with 10 or more employees. (Appendix 3)

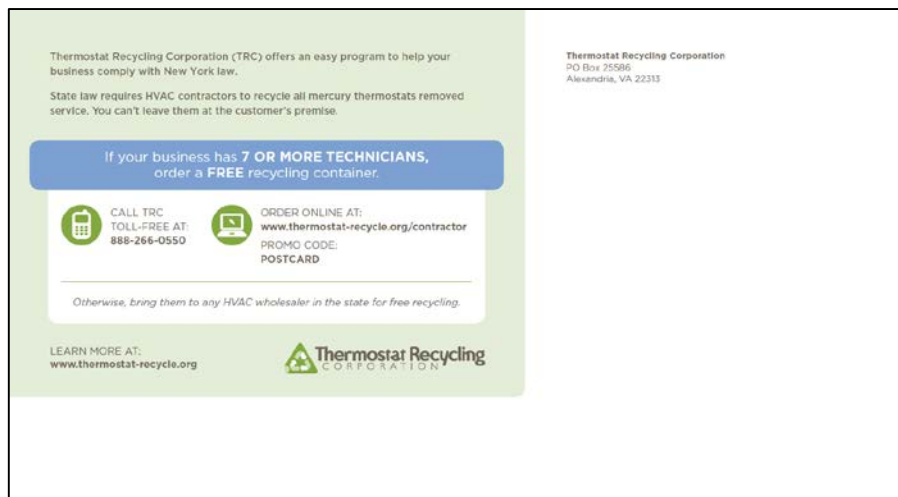
PROGRAM EDUCATION AND OUTREACH

EXHIBIT 3: 11X6 POSTCARD

Side 1:



Side 2:



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

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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 Iowa-based technicians/contractors to purchase replacement thermostats and recycle waste mercury thermostats.

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:

- ***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 4). Johnstone Supply has six locations in Iowa. 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 5)

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- **HVACR Business Magazine**, a national publication with approximately 34,000 qualified subscribers. TRC ran a full color 1/4 page advertisement in January, March and July. (Exhibit 6)

EXHIBIT 4: JOHNSTONE SUPPLY FLYER AD



EXHIBIT 5: DISTRIBUTION CENTER MAGAZINE ADS

May:



December:



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EXHIBIT 6: 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 7)

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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 7)
- NATE Enewsletter, sent bi-monthly to 31,900 opt-in subscribers. TRC ran a text ad that received a 0.14% CTR.

EXHIBIT 8: ACHR NEWS AND DISTRIBUTION CENTER ENEWSLETTER AD



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

- 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 8). The average CTR was 3.0%.
- 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 9)
- Contracting Business Magazine's dedicated Email Blast, which was sent twice with different messaging to opt-in subscribers in states with disposal bans, including Iowa. The January mailing was sent to 5,980 subscribers and received a 25% open rate and a 0.5% CTR (Appendix 4), while the June mailing was sent to 8,970 subscribers and received a 13% open rate and a 0.5% CTR (Appendix 5).

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- 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 10)
- 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 10)
- HVAC-Talk.com, an online forum that averages more than 300,000 monthly visitors. TRC ran a rotating banner ad in February, March and July which resulted in 291,706 total impressions and an average CTR of .03%. (Exhibit 9)


EXHIBIT 8: HVACR BUSINESS “AHEAD OF THE CURVE” ENEWSLETTER AD



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EXHIBIT 9: HVACRBUSINESS.COM AND HVAC-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

EXHIBIT 10: ACHRNEWS.COM TOPIC SPONSORSHIP ADS

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



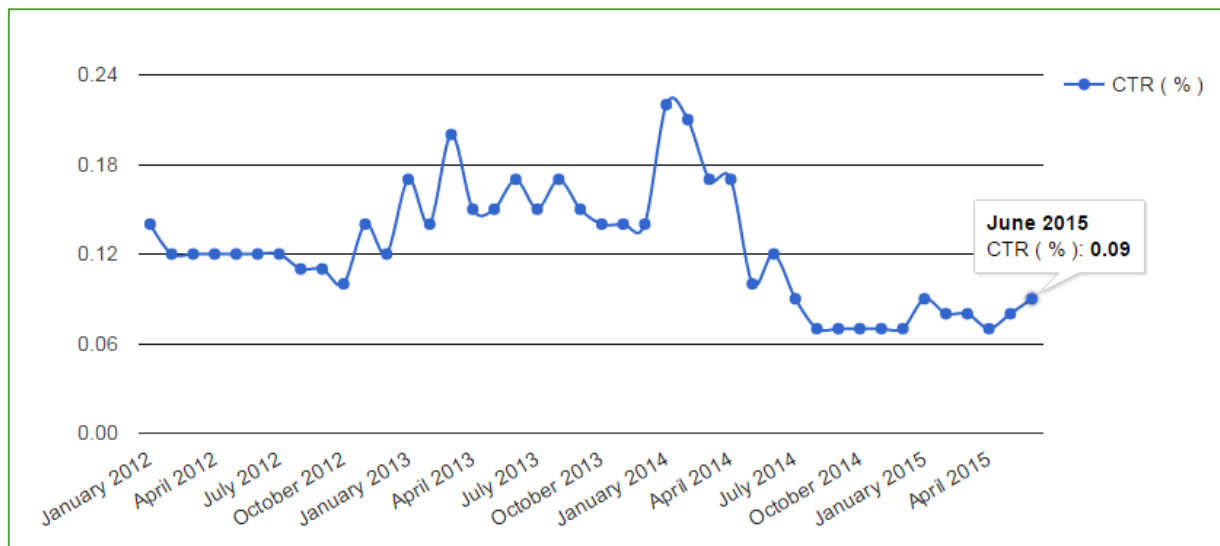
Mercury Thermostat
Recycling, the Easy Way.

 **Thermostat Recycling**
CORPORATION

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Exhibit 11 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 11: GOOGLE DISPLAY'S BENCHMARK TOOL



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 AdWords campaign that geo-targets contractors/technicians and consumers (homeowners) in states with mercury thermostat disposal bans, including Iowa (Exhibit 12). 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.).

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

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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 Iowa campaign yielded 261,224 impressions with an average CTR of 0.55%.

EXHIBIT 12: GOOGLE ADWORDS LANDING PAGE



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:

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- The Air Conditioning and Refrigeration (ACHR) News (370,378 reach), including a front page editorial article (Exhibit 13)
- Distribution Center (11,000 circulation)
- Contracting Business (40,000 circulation)
- Wholesale distributor's on-hold phone messaging, including Johnstone Supply and Standard Supply
- Johnstone Supply's printed flyer (300,000 circulation)
- HVAC-Talk.com (408,769 monthly unique browsers)

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 was published in March 2016 in Distribution Center Magazine. There were hundreds of eligible HARDI members considered, making this a highly competitive group.

EXHIBIT 13: ACHR NEWS FRONT PAGE EDITORIAL ARTICLE



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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 a 92% increase of visitors from Iowa and the state ranked 15th 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 AdWords 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 Iowa:

- **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 19,345 in the North Central region of the U.S.

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- **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.

- **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 six in Iowa. 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

PROGRAM EDUCATION AND OUTREACH

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.

- **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 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: NAHMMMA 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-

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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.

OTHER PROGRAM ACTIVITIES

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's corporate made a business decision to engage in 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, 3 of its Lyon Conklin Co. stores, and 2 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 14).

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

EXHIBIT 14: FERGUSON NATIONAL EMAIL



OTHER PROGRAM ACTIVITIES

Johnstone Supply National Promotion

In September, Johnstone Supply launched a 40 inch TV giveaway at 383 of their stores nationwide, including six locations in Iowa. 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 15) for the TRC merchandise display to promote awareness of the program in stores. A 4x6 sized postcard (Exhibit 15) was then sent to all Johnstone locations on 10/15 as a reminder to send in their bins after the TV promotion ended.

EXHIBIT 18: JOHNSTONE SUPPLY TV GIVEAWAY POSTER AND MERCHANDISE HEADER



OTHER PROGRAM ACTIVITIES

EXHIBIT 19: JOHNSTONE SUPPLY POSTCARD

Front Side:



Back Side:



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 16). The competition ran May 1st – October 31st and participating locations shipped a total of 432lbs of mercury during the competition.

OTHER PROGRAM ACTIVITIES

EXHIBIT 16: 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 18 phone calls to collection locations in Iowa 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 6 for a list of locations contacted.

Site Visits

A total of 43 Iowa 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 7 for a complete list of locations visited.

OTHER PROGRAM ACTIVITIES

Merchandise Displays for TRC Bins

Throughout the year TRC distributed branded cardboard displays to HVAC wholesale distributor collection locations to showcase the TRC container (Exhibit 17). The purpose of the displays is to enhance the visibility and accessibility of the program to contractors at HVAC wholesale locations. These displays were provided at no-cost to distributors.

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 17: TRC MERCHANDISE DISPLAY



OTHER PROGRAM ACTIVITIES

HVAC CONTRACTOR OUTREACH

TRC staff helped develop a draft model HVAC contractor environmental policy and shared it with the trade group, ACCA (Appendix 8). 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 18). 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.

EXHIBIT 18: HHW TRI-FOLD BROCHURE

Outside:



Inside:



UTILITY PROGRAM/IMPLEMENTOR OUTREACH

TRC staff wrote model utility implementer RFP requirements to share with utility companies (Appendix 9). 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

OTHER PROGRAM ACTIVITIES

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.

TRC engaged utility implementers who are members of Association of Energy Service Professionals (AESP). In May TRC sent an email to AESP's subscriber list to remind them of their regulatory obligations and offer them a free TRC recycling container (Appendix 10). TRC sent a follow up email in August (Appendix 11). The email in May received a 16% open rate and the one in August received an 18% open rate. TRC did not receive any requests for the free recycling bin offer.

HVAC TECHNICIAN SURVEY

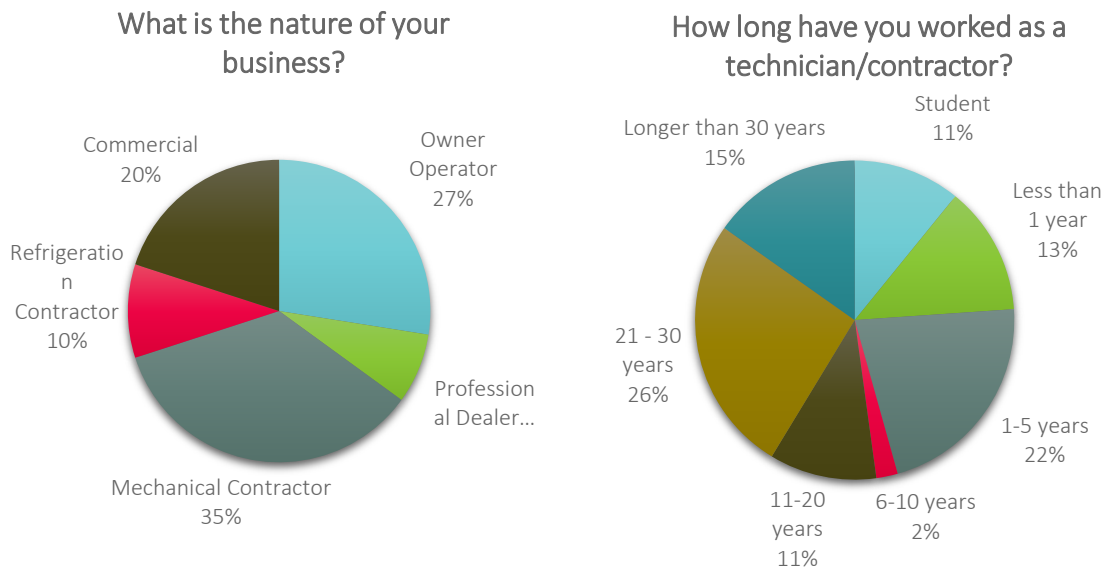
TRC hired a third-party to create a contractor behavior survey to collect first-hand accounts about recycling practices and compliance patterns of technicians as well as company level acceptance/resistance to compliance. The technician survey was conducted in-person by TRC staff and administered via touch screen devices at several HVAC trade shows nationwide. 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:

OTHER PROGRAM ACTIVITIES



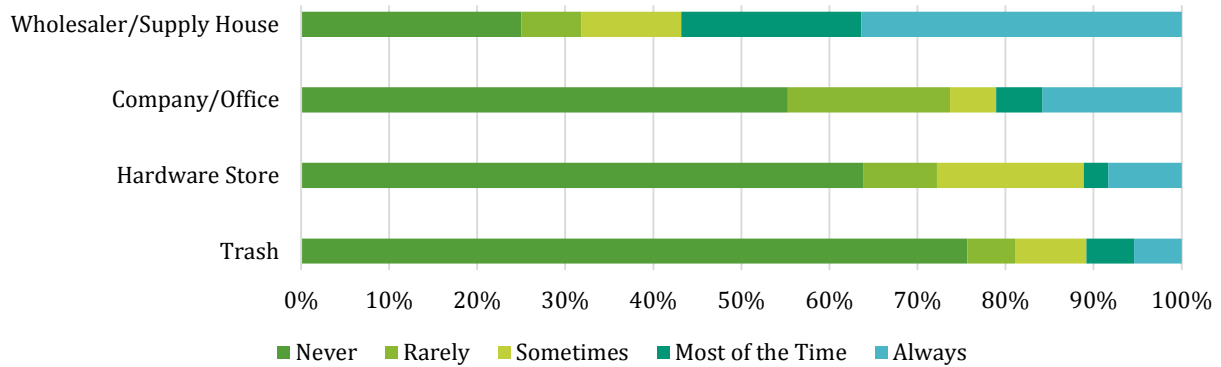
The demographic data shows that there was a widely varied mix of business sectors and experience levels. This means that the findings from the survey can be applied generally without a need for demographic qualifiers. The largest business sector was Mechanical Contractor followed by Owner Operator. These 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:

OTHER PROGRAM ACTIVITIES

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

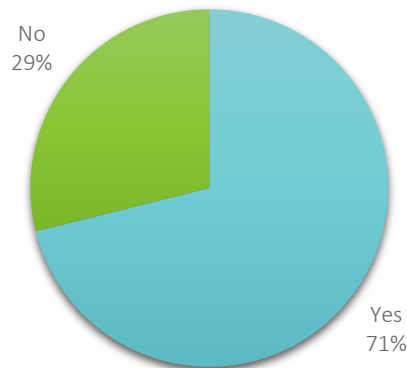


The above chart shows that the main location for the disposal of mercury containing thermostats is at the wholesaler. It also points out that roughly 25% of technicians do at least occasionally throw the thermostats in the trash. The data shows that when technicians do dispose of the mercury containing 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:

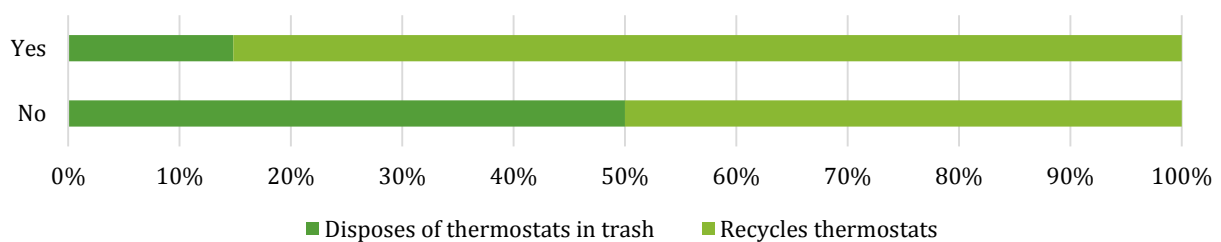
OTHER PROGRAM ACTIVITIES

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?



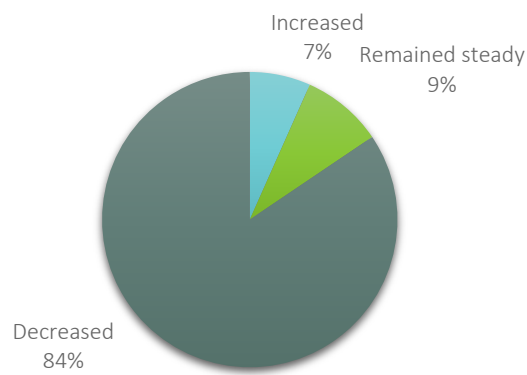
The above chart shows that 85% of technicians whose employer requires recycling of mercury containing thermostats actually recycle. By contrast, only 50% recycle without employer requirement. This strongly suggests that employer policies do have a substantive impact on recycling by employees.

OTHER PROGRAM ACTIVITIES

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...



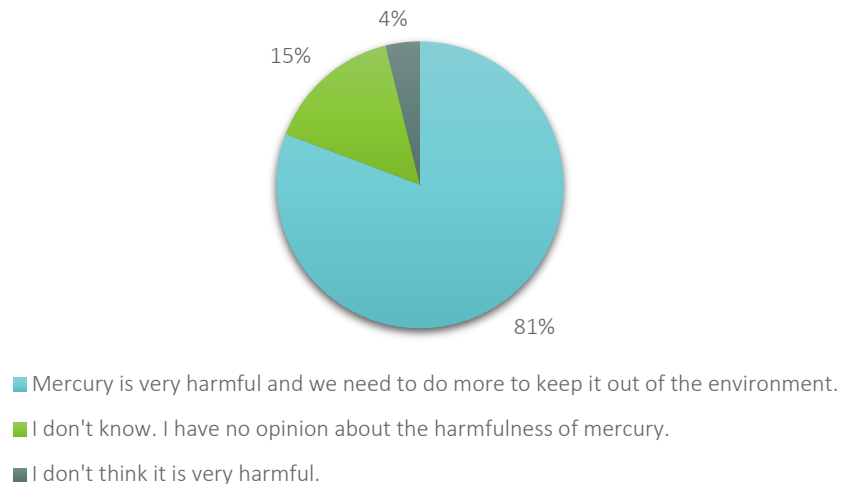
When asked how the number of mercury containing thermostats encountered during their career had changed most technicians felt that there had been a decrease. This leads to the conclusion that the number of available thermostats has also decreased.

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.

OTHER PROGRAM ACTIVITIES

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 EXPENSES

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

EXHIBIT 19: 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 20: 2015 PROGRAM EXPENSES WITH IOWA SPECIFIC COSTS

Category	Total Expenses	National	IA
TRC Staff and Administration	\$ 625,204.88	\$ 469,218.76	\$ 2,906.89
Recycling Costs	\$ 347,555.25	\$ 199,057.25	\$ 4,891.25
Incentive/Promotional Payments	\$ 42,224.42	\$ -	\$ -
New Collection Containers	\$ 10,960.00	\$ 10,960.00	\$ -
Travel	\$ 81,152.16	\$ 42,928.84	\$ 1,596.32
Legal	\$ 21,228.28	\$ 3,104.90	\$ 51.37
Direct Expense for Marketing & Outreach	\$ 277,994.50	\$ 147,352.68	\$ 5,479.96
Total (expenses)	\$ 1,406,319.49	\$ 872,622.43	\$ 14,925.78

- 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, Iowa ordered 0.94% of all new container orders.

PROGRAM ANALYTICS

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 Iowa. According to a recent report, “they have not been placed in vehicles since model year 2003.” Mercury switch thermostats have not been sold since the mid 2000’s. 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.

PROGRAM PERFORMANCE OVER TIME

On average, the program has **collected 17.3 pounds of mercury and 2,086 thermostats per year** since 1998. In 2015 the program **collected 21.35 pounds of mercury from 2,795 thermostats**, a decrease from the previous year of 12.8% in pounds of mercury and 3.1% in thermostats. However, 2015 saw a high in the number of bins returned 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.

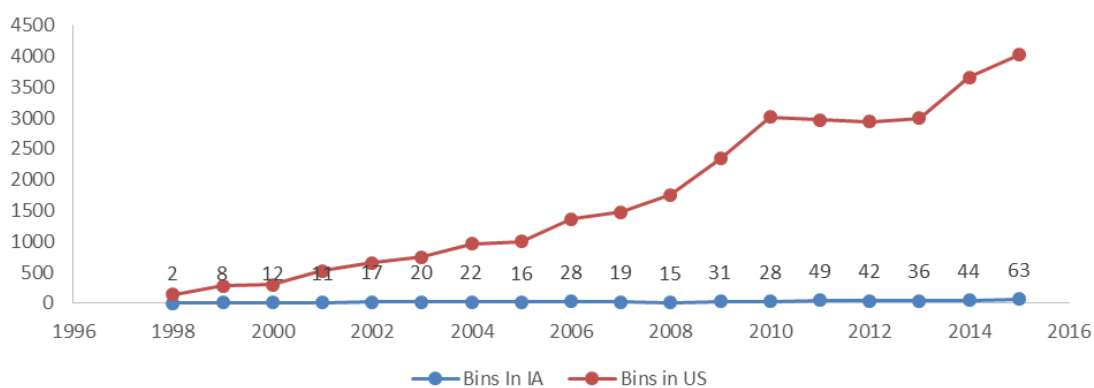
PROGRAM ANALYTICS

FIGURE 1.1: PROGRAM PERFORMANCE OVER TIME

Year	Number Bins	Number Stats	Lbs Mercury
1998	2	127	0.93
1999	8	765	6.07
2000	12	1,343	10.42
2001	11	1,082	8.46
2002	17	1,815	13.99
2003	20	2,065	17.79
2004	22	2,293	18.58
2005	16	1,696	14.02
2006	28	2,853	24.45
2007	19	1,735	13.94
2008	15	1,536	12.67
2009	31	2,983	27.13
2010	28	2,225	18.93
2011	49	3,850	31.63
2012	42	2,454	20.73
2013	36	3,038	26.52
2014	44	2,884	24.48
2015	63	2,795	21.35
Average	25.7	2,085.5	17.3
Total	463	37,539	312

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 in IA hit an annual high in 2015 (63) followed by the 2011 which saw 49 bins returned in the state.

FIGURE 1.2. BINS COLLECTED OVER TIME IN STATE AND NATIONALLY



PROGRAM ANALYTICS

In IA, the **pounds of mercury collected in 2015 decreased by 13% over 2014 levels** however, since 1999, the pounds of mercury collected in IA has increased by an annual average of 48%. During the same time period, the pounds of mercury collected in the nation increased by an average of 21% 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
1998	0.93	N/A	NA
1999	6.07	553%	103.6%
2000	10.42	72%	10.9%
2001	8.46	-19%	89.4%
2002	13.99	65%	13.7%
2003	17.79	27%	11.0%
2004	18.58	4%	17.0%
2005	14.02	-25%	11.1%
2006	24.45	74%	32.1%
2007	13.94	-43%	2.0%
2008	12.67	-9%	16.3%
2009	27.13	114%	16.3%
2010	18.93	-30%	26.1%
2011	31.63	67%	3.6%
2012	20.73	-34%	-5.3%
2013	26.52	28%	-4.8%
2014	24.48	-8%	12.9%
2015	21.35	-13%	-1.4%
Average	17.34	48%	21%

The state of IA collected 2,795 thermostats in 2015. This was a **3% decrease from the number of thermostats collected in 2014** and a **2% decrease from what was collected 10 years ago**. The number of thermostats collected annually in IA has increased by an **average of 45% every year since 1998** and the number of thermostats has remained above 2,000 a year for the last seven years. The number of thermostats collected in the US has increased by an annual average rate of

PROGRAM ANALYTICS

20% since 2001. 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.

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

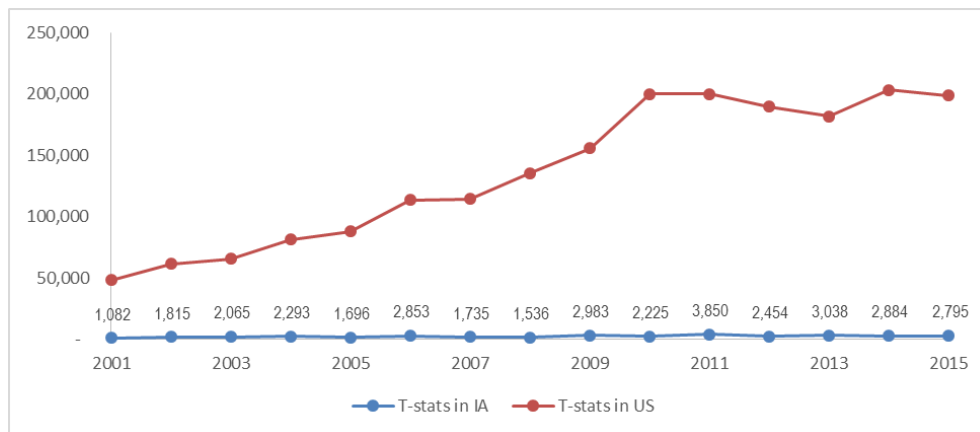


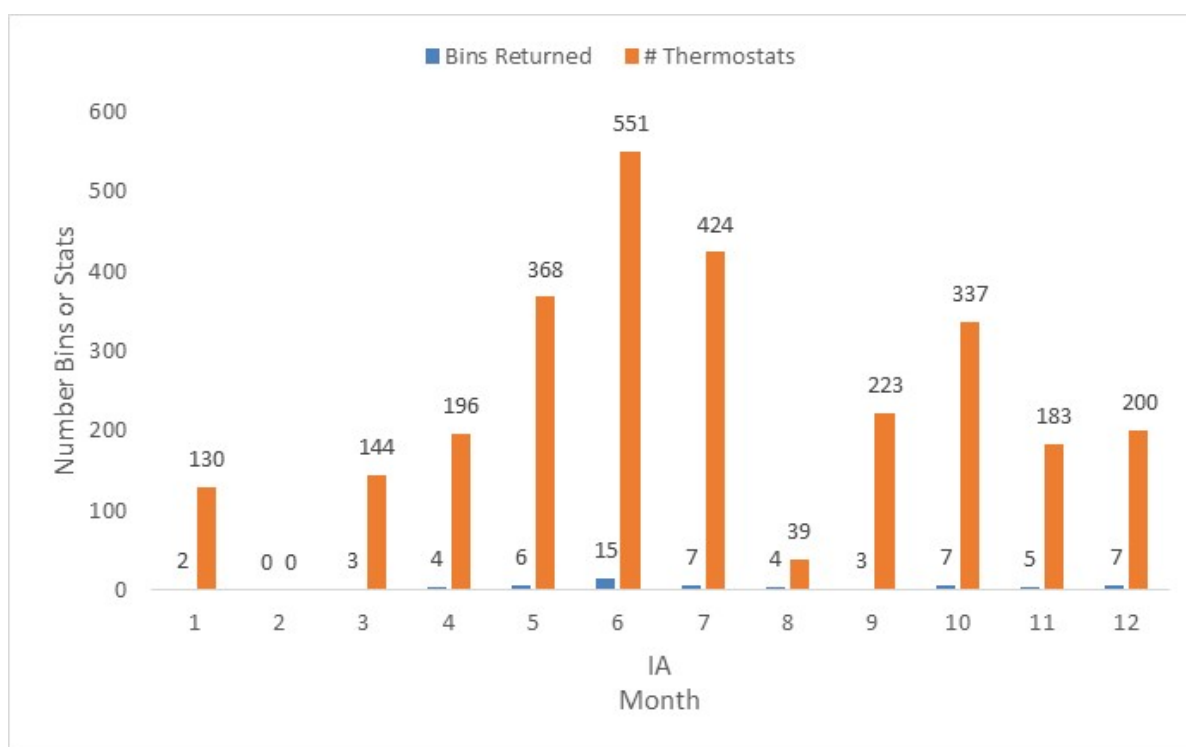
FIGURE 1.5: THERMOSTATS COLLECTED IN IA AND US OVER TIME AND YEAR OVER YEAR PERCENT CHANGE

Year	T-stats in IA	T-stats in US	% Change State	% Change US
1998	127	13,158	NA	NA
1999	765	27,965	502%	113%
2000	1,343	29,637	76%	6%
2001	1,082	48,350	-19%	63%
2002	1,815	61,422	68%	27%
2003	2,065	65,778	14%	7%
2004	2,293	81,115	11%	23%
2005	1,696	87,754	-26%	8%
2006	2,853	113,658	68%	30%
2007	1,735	114,158	-39%	0%
2008	1,536	135,646	-11%	19%
2009	2,983	155,731	94%	15%
2010	2,225	200,064	-25%	28%
2011	3,850	199,918	73%	0%
2012	2,454	189,619	-36%	-5%
2013	3,038	181,600	24%	-4%
2014	2,884	203,346	-5%	12%
2015	2,795	198,603	-3%	-2%
Average	2,085.5	117,084.6	45%	20%

PROGRAM ANALYTICS

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 **June** (15 bins) and **July**, **October and December** (7 bins each). The months with the greatest number of thermostats returned were **June** (551 thermostats), **July** (424 thermostats), and **May** (368 thermostats). There were **no thermostats or bins returned in February**, and only **4 bins and 39 thermostats returned in September**.

FIGURE 1.6. THERMOSTATS AND BINS COLLECTED PER MONTH 2015



The highest number of thermostats returned per bin was in **September** (74.3), **January** (65.0) and **May** (61.3). Figure 1.7 shows the average number of thermostats per returned bin per month for the year.

PROGRAM ANALYTICS

FIGURE 1.7: AVERAGE THERMOSTATS PER BIN RETURNED PER MONTH

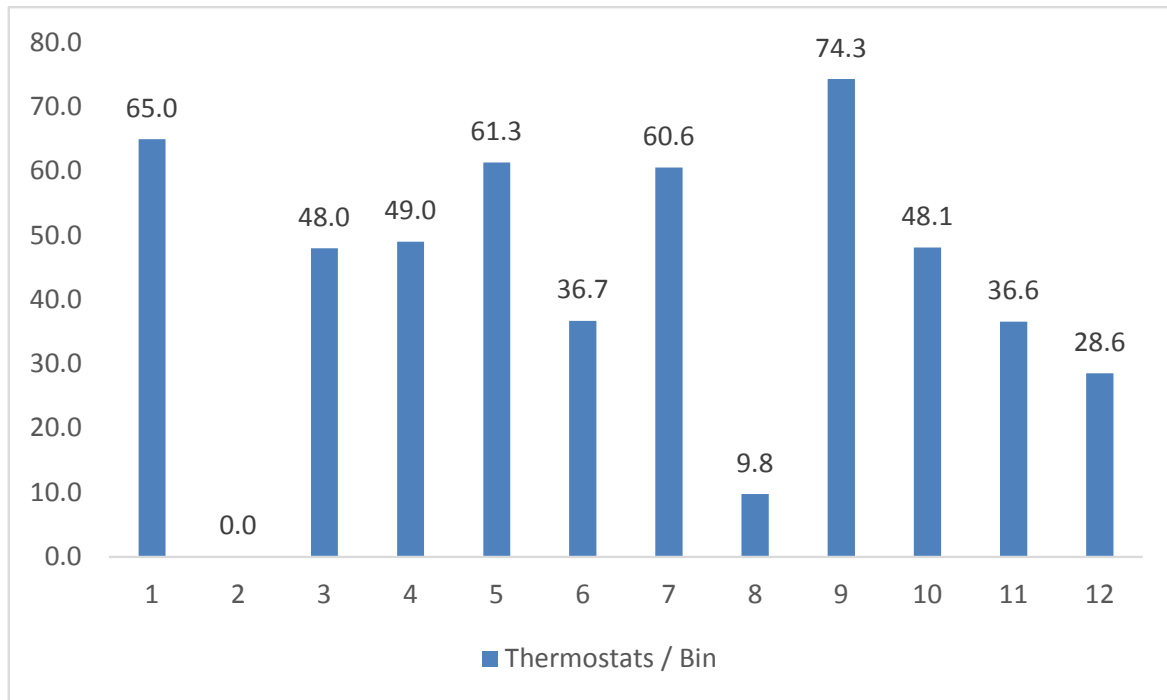


Figure 1.8 displays the average number of thermostats returned per bin in the state and in the US since the beginning of the state program. Nationally, the number of thermostats per bin has been decreasing annually since 2000. Likewise, in IA the number of thermostats per bin has been decreasing annually since a high in 2000 (98.5 thermostats / bin avg.) and the number of thermostats per bin in 2015 (**44.4 thermostats / bin avg.**) was the lowest on record. The average number of thermostats per bin in IA is 88.5.

PROGRAM ANALYTICS

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

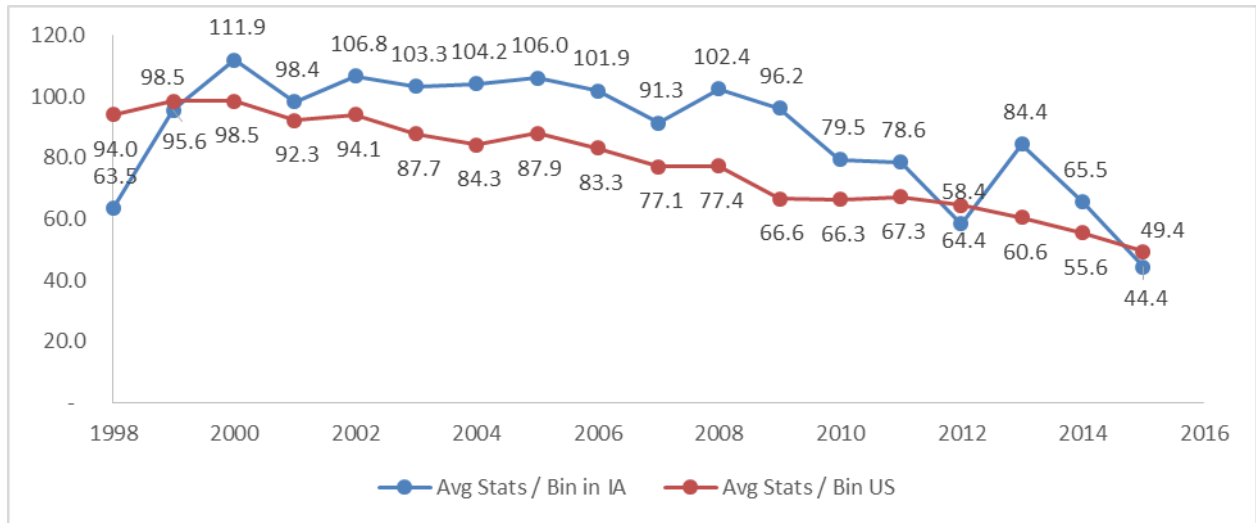
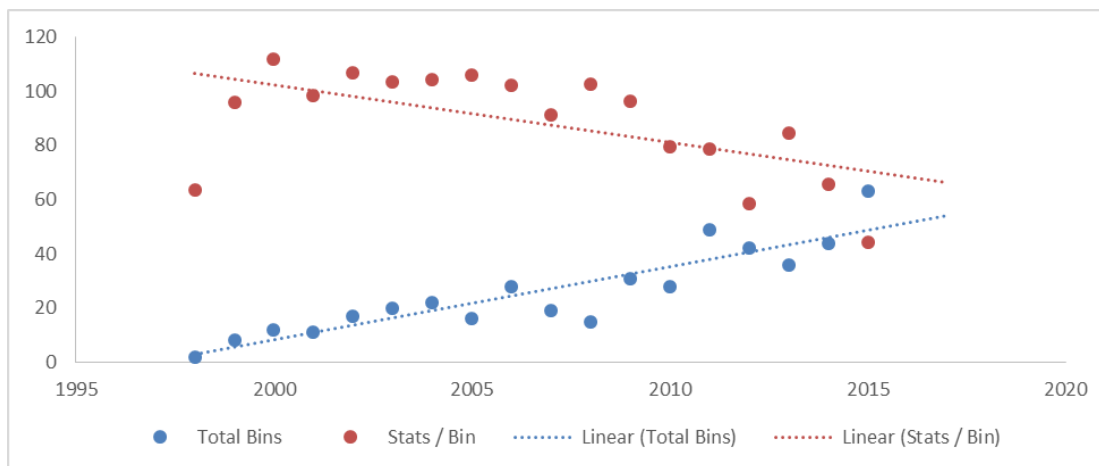


Figure 1.9 plots the total bins returned over time along with the average number of thermostats per bin over the same period to see whether or not there is a relationship between the two. A linear regression found a strong negative correlation ($r=-.65$, slope=-.789) between the two variables. This indicates that as more bins are returned in IA, the number of thermostats per bin declines.

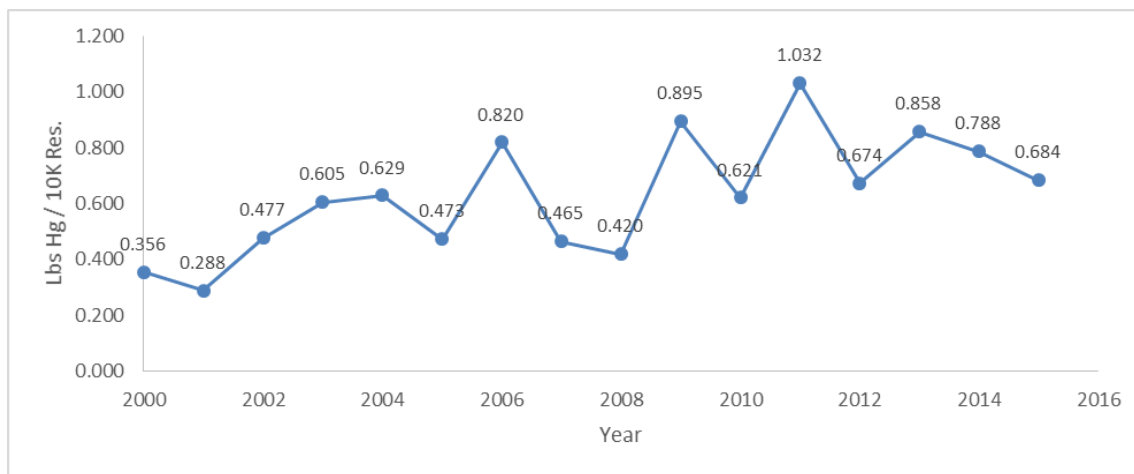
FIGURE 1.9: TOTAL BINS AND AVERAGE NUMBER OF THERMOSTATS PER BIN OVER TIME



PROGRAM ANALYTICS

The **total pounds of mercury collected per 10,000 residents was 0.68 in 2015**. This is a 13% decrease over the 0.79 pounds per 10,000 residents collected in 2014 and is 17% less than the 0.82 pounds per 10,000 residents collected a decade ago. However, it is above the program average of .63 lbs of mercury per 10,000 residents. Figure 1.10 displays 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

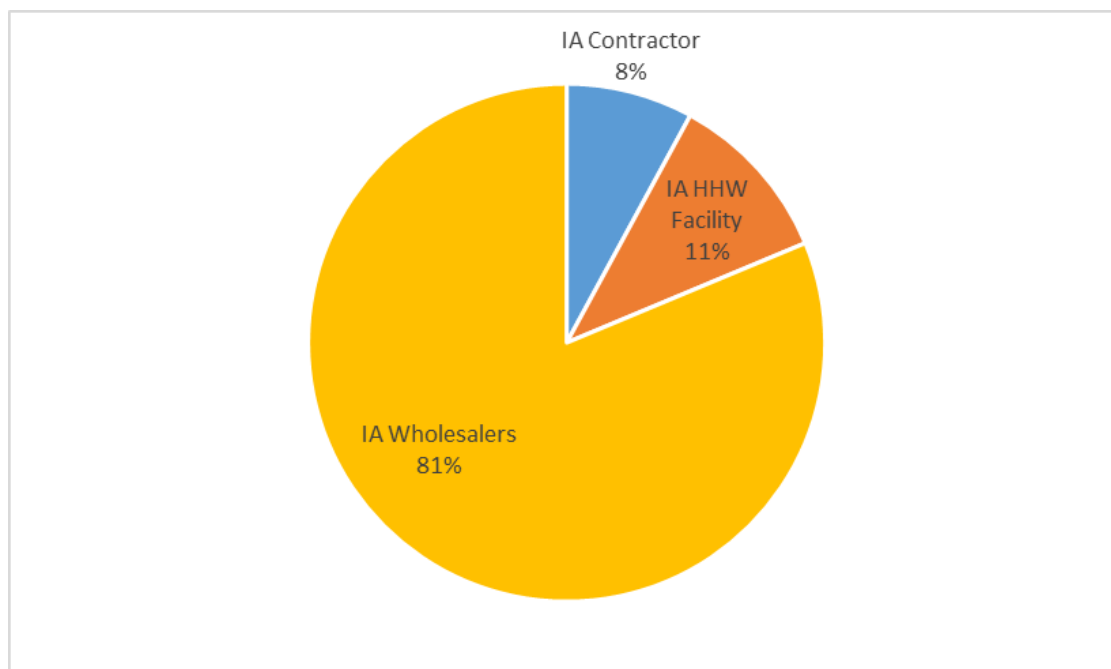


CHANNEL PARTNER ANALYSIS

This section of the report examines the partner locations in more detail. The majority of thermostats collected in state were through **wholesalers (81%)** with the remaining thermostats collected by household **hazardous waste facilities (11%)** and **contractors (8%)**. Figure 2.1 shows the distribution of thermostats collected by location type in 2015.

PROGRAM ANALYTICS

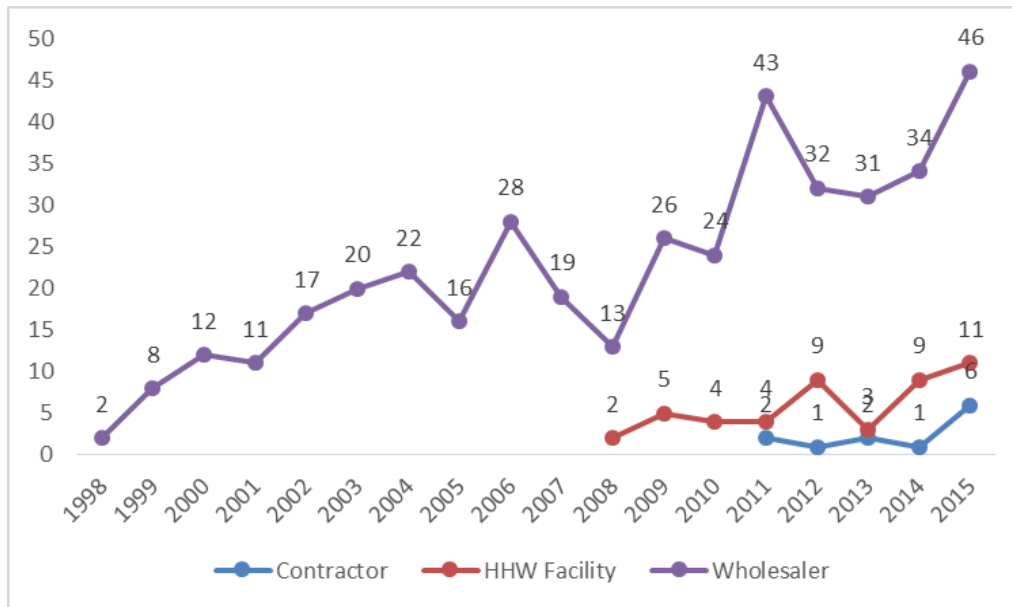
FIGURE 2.1: THERMOSTATS COLLECTED BY LOCATION TYPE IN 2015



The number of bins returned in 2015 was an all-time high in IA and the number of bins returned by each location type increased. The number of bins returned by wholesalers increased from 34 bins in 2014 to 46 bins in 2015. At the same time, the number of bins returned by contractors increased from 1 to 6 from 2014 to 2015. The number returned by household hazardous waste facilities also increased from 9 bins in 2014 to 11 in 2015. Figure 2.2 displays the change in the number of bins returned by thermostat collection type over time in the state.

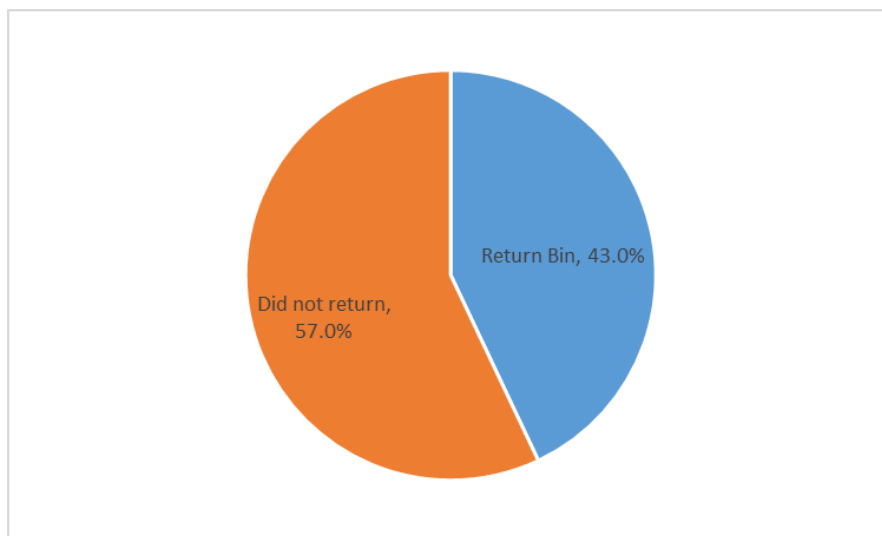
PROGRAM ANALYTICS

FIGURE 2.2: THERMOSTAT BIN RETURNS BY LOCATIONS OVER TIME



In 2015, **43.0% of the locations** that had a bin in the state of IA sent back at least one bin for recycling. The distribution is displayed in Figure 2.3.

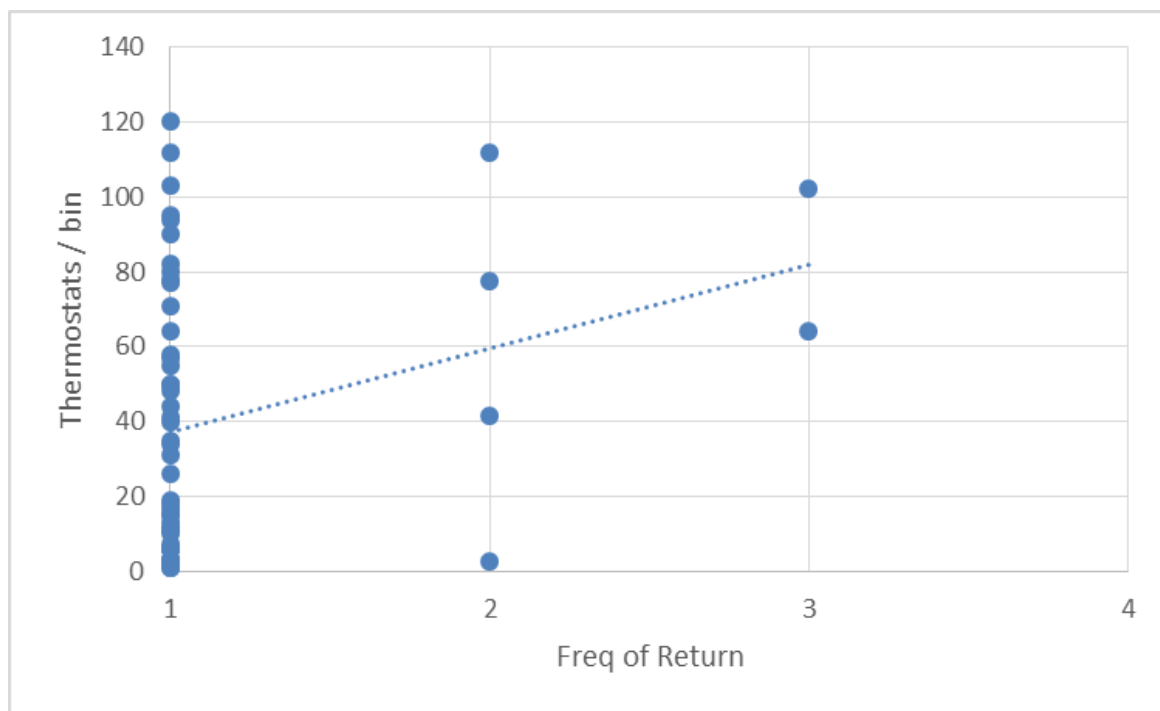
FIGURE 2.3: PERCENTAGE OF STORES RETURNING A BIN IN 2015



PROGRAM ANALYTICS

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 IA.

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 was **Polk (14 bins)**, followed by **Black Hawk (11 bins)** and **Scott (8 bins)**. The counties with the most thermostats returned in 2015 were **Scott (567 thermostats)**, **Black Hawk (507 thermostats)** and **Woodbury (423 thermostats)**. Figure 2.5 displays the total bins and thermostats returned, by county, in 2015.

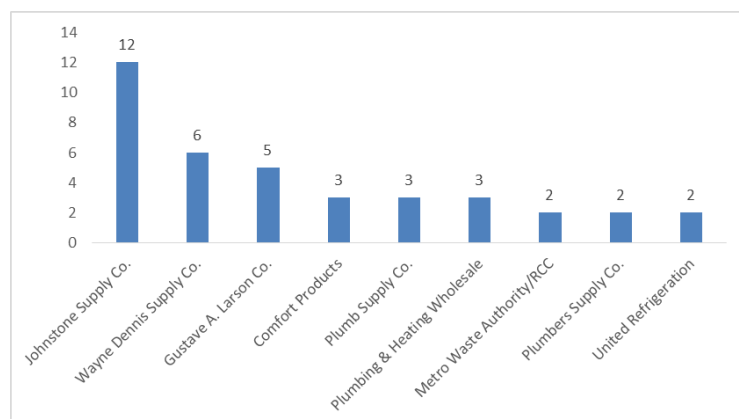
PROGRAM ANALYTICS

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

County	Total Bins	Total T-stats
Polk County	14	376
Black Hawk County	11	507
Scott County	8	567
Woodbury County	6	423
Cerro Gordo County	4	353
Linn County	4	104
Johnson County	3	282
Dubuque County	2	98
Story County	2	23
Appanoose County	1	6
Carroll County	1	6
Cherokee County	1	3
Chickasaw County	1	2
Clay County	1	11
Dickinson County	1	19
Lee County	1	1
Mahaska County	1	12
Wapello County	1	2

Johnstone Supply Co. (12 bins) returned the highest number of bins in the state in 2015, followed by **Wayne Dennis Supply Co. (6 bins)** and **Gustave A. Larson Co. (5 bins)**. 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



PROGRAM ANALYTICS

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.

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

	No. of Bins	No. of Thermostats	Thermostats / Bin
Johnstone Supply Co.	12	864	72.0
Wayne Dennis Supply Co.	6	227	37.8
Gustave A. Larson Co.	5	330	66.0
Comfort Products	3	85	28.3
Plumb Supply Co.	3	15	5.0
Plumbing & Heating Wholesale	3	161	53.7
Metro Waste Authority/RCC	2	83	41.5
Plumbers Supply Co.	2	224	112.0
United Refrigeration	2	47	23.5

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 **44 site visits were conducted in IA** and **18 ‘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. There was not a statistically significant relationship between the number of visits and the number of bins returned.

PROGRAM ANALYTICS

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

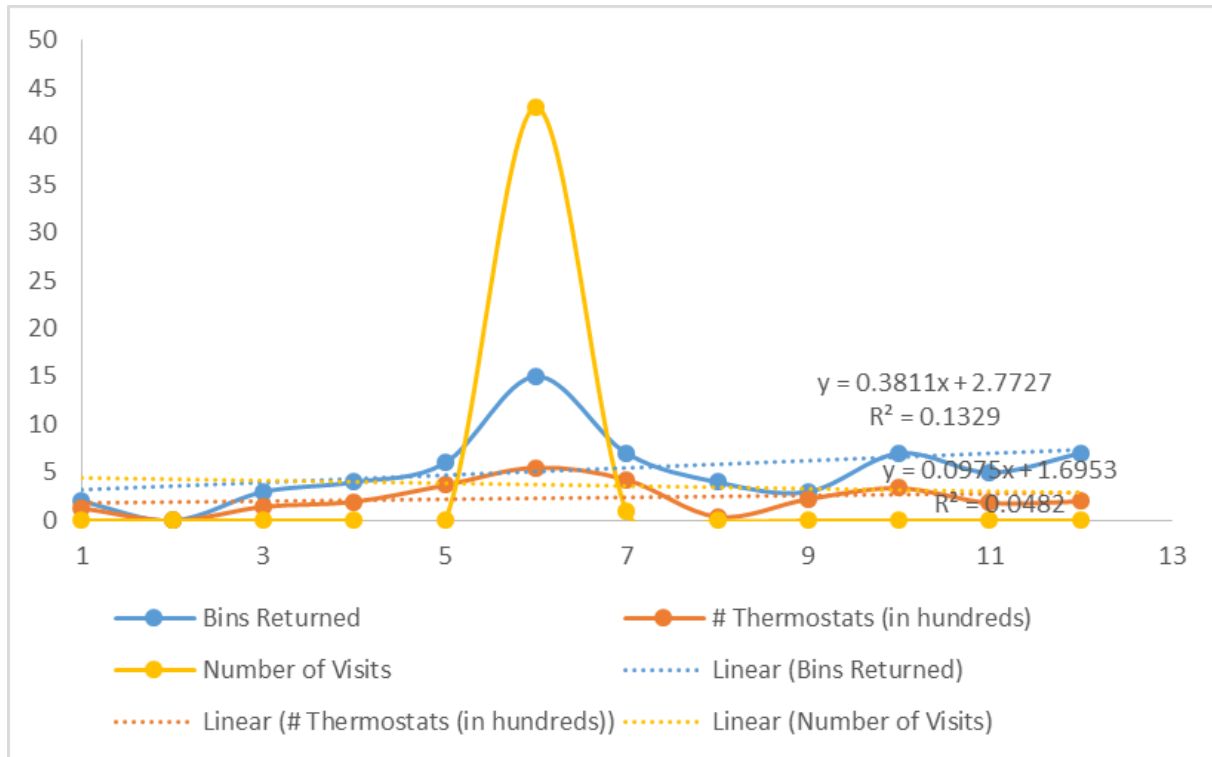
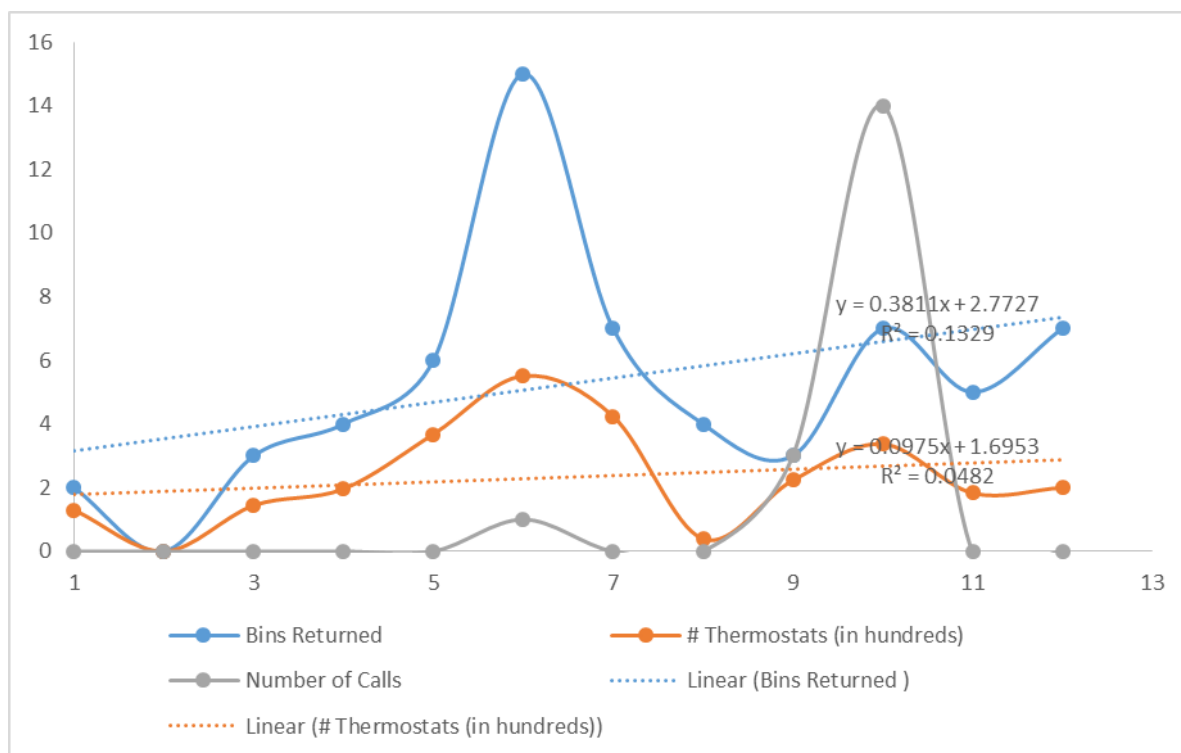


Figure 2.9 displays the relationship between the number of calls per month, the bin returns per month, and the number of thermostats (by 100's) returned per month. Once again there was not a statistically significant relationship between the two variables.

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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 average 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 IA than the US average and the annual averages are shown in figure 3.1.

PROGRAM ANALYTICS

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

Average number of bins returned per year per location	2012	2013	2014	2015
US Total	1.4	1.4	1.6	1.8
IA Average	0.6	0.5	0.6	0.9

Figure 3.2 displays the locations in IA 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. Gustave A. Larson Company, Johnstone Supply, Lennox Industries and United Refrigeration are partners that appear on both the state and the national lists.

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

Location	2012 Bins	Location	2014 Bins
Wayne Dennis Supply Co.	7	Johnstone Supply	7
Johnstone Supply	6	Gustave A Larson Company	6
NICHOLS CONTROLS & SUPPLY, INC.	5	REPUBLIC COMPANY	4
Gustave A Larson Company	3	NICHOLS CONTROLS & SUPPLY, INC.	3
Plumb Supply Company	2	Plumb Supply Company	2
Metro Waste Authority/RCC	2	PLUMBING & HEATING WHOLESALE	2
United Refrigeration	2	Metro Waste Authority/RCC	2
Lennox Industries Inc	2	Wayne Dennis Supply Co.	2
Location	2013 Bins	Heating and Cooling Supply Co	2
Johnstone Supply	10	Location	2015 Bins
REPUBLIC COMPANY	4	Johnstone Supply Co.	12
Wayne Dennis Supply Co.	5	Wayne Dennis Supply Co.	6
NICHOLS CONTROLS & SUPPLY, INC.	3	Gustave A. Larson Co.	5
Plumb Supply Company	2	Comfort Products	3
Dubuque Supply	2	Plumb Supply Co.	3
		Plumbing & Heating Wholesale	3
		Metro Waste Authority/RCC	2
		Plumbers Supply Co.	2
		United Refrigeration	2

PROGRAM ANALYTICS

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, 43.0% of the locations in IA 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 ANALYTICS

FIGURE 3.4: PERCENTAGE OF LOCATIONS RETURNING A BIN IN 2015

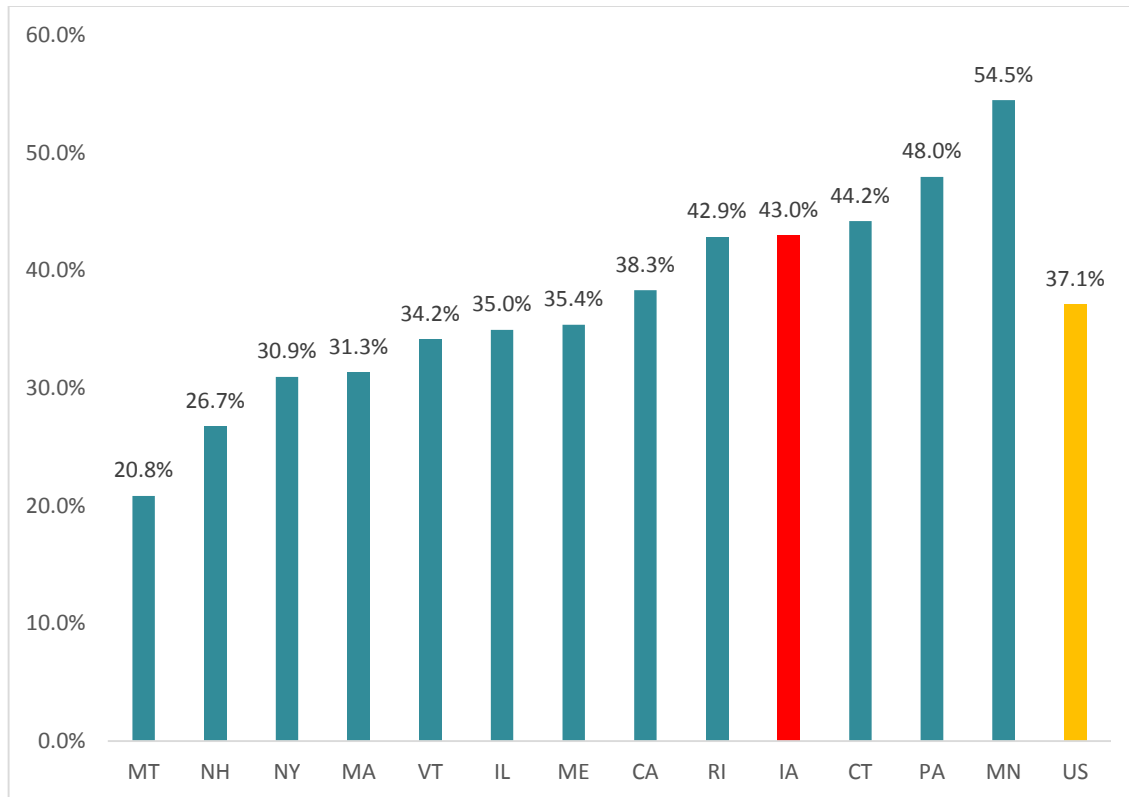


Figure 3.5 compares the state and national rates for a number of analytics in 2015. These include: the total thermostats and bins collected, the number of collection locations in each state per 10,000 residents, the number of thermostats collected by total locations and per participating location, the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

PROGRAM ANALYTICS

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

State	Total Thermostats	Total Bins	Number locations per 10K Res (avg.)	Thermostats per total locations (avg.)	Thermostats per bin (avg.)	Thermostats per location returning a bin (avg.)	Thermostats per 10K residents (avg.)
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
NH	2,652	61	1.51	13.1	43.5	49.1	19.9
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
US	84,856	1902	0.33	23.9	44.6	64.3	7.8

RECOMMENDATIONS/NEXT STEPS

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 Iowa, 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.

RECOMMENDATIONS/NEXT STEPS

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 21). 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 positive 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 21: ACHR NEWS FULL PAGE AD

AN IMPORTANT MESSAGE TO HVAC CONTRACTORS:

EVERY MERCURY THERMOSTAT EVERY 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

Thermostat Recycling CORPORATION
an industry-funded non-profit

Additionally in January, TRC launched a new branding campaign, “Recycle every mercury thermostat, every time” (Exhibit 22). The campaign messaging is based off frequent feedback TRC staff receives when contractors say “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

RECOMMENDATIONS/NEXT STEPS

tools. HVAC tools are safe when used properly, just like mercury thermostats are safe when recycled and disposed of properly.

EXHIBIT 22: NEW BRANDING CAMPAIGN



The advertisement features a green recycling logo and the text "Thermostat Recycling CORPORATION" at the top left. A green banner across the middle contains the question "WOULD YOU LET YOUR KIDS PLAY WITH THESE?". Below this, text reads "You may have played with mercury as a kid, but times have changed." and "RECYCLE **EVERY** MERCURY THERMOSTAT, **EVERY** TIME." The background shows a young boy holding a power drill and a young girl holding a chainsaw. At the bottom left is a green recycling bin, and at the bottom right is the website "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.

PAID ADVERTISING

Additionally, TRC is currently working to update its Google AdWords campaign to include display ads, which include images versus only text, to enhance the visibility of the ads. TRC also plans to

RECOMMENDATIONS/NEXT STEPS

implement Facebook, and potentially YouTube, advertising in the spring and fall during the HVAC industry's shoulder (busier) seasons. Ads will have similar messaging to the Google AdWords 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
- 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.

APPENDIX 1: LETTER TO HARDI PRINCIPLES



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

July 17th, 2015

Dennis Company
ATTN: Drew Dennis
3016 Brady Street
Davenport, IA 52803

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

Dear Mr. Dennis:

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: LETTER TO WINSUPPLY LOCATIONS



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

October 28, 2015

Ames Winnelson Co
ATTN: Branch Manager
1021 Airport Road
Ames, IA 50010

Dear Branch Manager:

I am writing you because HVAC Wholesale Distributors in the state of Iowa 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 Iowa law.

TRC is a non-profit organization funded by thermostat manufacturers. It operates the mandatory collection program in Iowa 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.

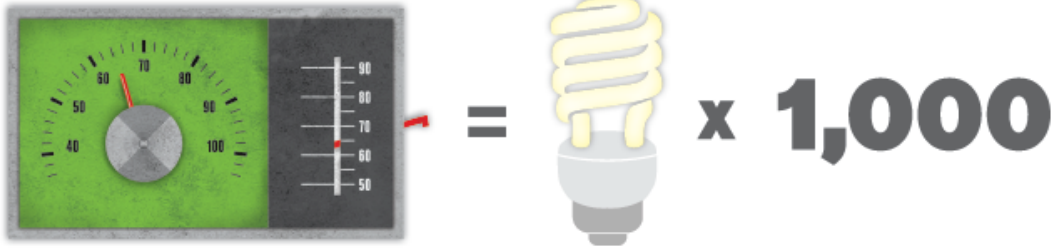
Looking forward to speaking,

Ryan L. Kiscaden
Director of National Accounts

ENCLOSED:
Iowa State Law
HVAC/r Wholesale Participation Form

APPENDIX 3: 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 4: CONTRACTING BUSINESS JAN EBLAST



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 5: CONTRACTING BUSINESS JUN 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 6: COLLECTION LOCATION PHONE CALLS

(SORTED BY DATE, THEN ALPHABETICALLY BY CITY)

Date	Collection Location	City
6/10/2015	Kretschmer Tredway Co.	Dubuque
9/30/2015	First Supply	Dubuque
9/30/2015	Cedar Rapids Sheet Metal	Cedar Rapids
9/30/2015	Landfill Of North Iowa/Rcc	Clear Lake
10/1/2015	Air Management Supply-Des Moines	Des Moines
10/1/2015	Consolidated Materials Company	Des Moines
10/1/2015	Wayne Dennis Supply Co	Ames
10/1/2015	Kelly Supply Company	Oskaloosa
10/1/2015	Iowa Wholesale Supply	Marshalltown
10/1/2015	Davenport Trane Parts Center	Davenport
10/1/2015	Dennis Company Inc.-Burlington	Burlington
10/1/2015	First Supply	Cedar Rapids
10/1/2015	Metro Waste Authority/Rcc	Bondurant
10/1/2015	Rathbun Area Solid Waste Commission/Rcc	Centerville
10/1/2015	Woodbury Co Rcc	Moville
10/1/2015	Cass County Landfill & Recycling Center/Rcc	Atlantic
10/1/2015	Cedar Rapids / Linn County Solid Waste Agency/Rcc	Marion
10/1/2015	Clinton County Sanitary Landfill/Rcc	Clinton

APPENDIX 7: COLLECTION LOCATION VISITS

(SORTED BY DATE, THEN ALPHABETICALLY BY CITY)

Date of visit	Collection Location	Billing Street	City	Zip Code	County
6/22/2015	Johnstone Supply	2701 Ford Street	Ames	50010	Lake County
6/22/2015	Wayne Dennis Supply Co	2711 Ford St	Ames	50010	Story County
6/22/2015	Plumb Supply Company-Ames	2408 East Lincolnway	Ames	50010	Story County
6/22/2015	Plumb Supply Company-Marshalltown	801-B Iowa Ave. West	Marshalltown	50158	Story County
6/22/2015	Lennox Industries Inc.-Marshalltown	1402 East Main Street	Marshalltown	50158	Marshall County
6/22/2015	Iowa Wholesale Supply	14 S. 2Nd Ave.	Marshalltown	50158	Marshall County
6/22/2015	Plumb Supply Company-Pella	208 SE 9TH St.	Pella	50219	Marshall County
6/22/2015	Plumb Supply Company-Waukee	920 SE Frontier Rd	Waukee	50263	Marion County
6/22/2015	United Refrigeration-Des Moines	927 8th Street	Des Moines	50309	Polk County
6/22/2015	Consolidated Materials Company	600 Holcomb	Des Moines	50313	Polk County
6/22/2015	Heating and Cooling Supply	3100 Delaware Ave.	Des Moines	50313	Polk County
6/22/2015	Air Management Supply-Des Moines	1820 E. Sheridan Ave.	Des Moines	50316	Polk County
6/22/2015	Nichols Controls & Supply, Inc.	1721 Dean Ave	Des Moines	50316	Polk County
6/22/2015	Gustave A. Larson Company-Des Moines	2510 Bell Ave.	Des Moines	50321	Polk County
6/22/2015	cfm Distributors, Inc.-Des Moines	4137 109th Street	Des Moines	50322	Polk County
6/22/2015	Johnstone Supply Co-Urbandale	11000 Justin Dr	Urbandale	50322	Polk County
6/22/2015	Dey Distributing	3123 99Th Street	Urbandale	50322	Polk County
6/22/2015	Wayne Dennis Supply Co-Urbandale	3155 99Th St	Urbandale	50322	Polk County
6/22/2015	Comfort Products-Urbandale	4101 N.W. 121 Street	Urbandale	50323	Polk County
6/22/2015	Lennox Industries Inc.-Urbandale	4251 NW 121 Street	Urbandale	50323	Dallas County
6/22/2015	Wayne Dennis Supply	319 New York Avenue	Des Moines	50325	Dallas County
6/22/2015	Halvorson Trane	2220 N.W. 108Th St.	Clive	50325	Polk County
6/22/2015	Comfort Products	5529 Nordic Drive	Cedar Falls	50613	Polk County
6/22/2015	Dey Distributing-Waterloo	3727 University Ave	Waterloo	50701	Black Hawk County

APPENDIX 7: COLLECTION LOCATION VISITS

(SORTED BY DATE, THEN ALPHABETICALLY BY CITY)

6/22/2015	Nelson And Hagy	622 Ansborough Ave	Waterloo	50701	Black Hawk County
6/22/2015	Johnstone Supply #155	329 West 6Th Street	Waterloo	50701	Black Hawk County
6/22/2015	Wayne Dennis Supply	721 Ansborough Avenue	Waterloo	50701	Black Hawk County
6/22/2015	Heating And Cooling Supply Co., Inc	105 Broadway	Waterloo	50703	Black Hawk County
6/22/2015	Plumb Supply Company-Iowa City	225 E. Prentiss St.	Iowa City	52240	Black Hawk County
6/22/2015	Plumbers Supply Co.	72 Commercial Drive	Iowa City	52246	Johnson County
6/22/2015	United Refrigeration-Cedar Rapids	515 8Th Ave. S.E.	Cedar Rapids	52401	Johnson County
6/22/2015	Dennis Company Inc.-Cedar Rapids	203 30th Street Drive, S.E.	Cedar Rapids	52403	Linn County
6/22/2015	Habegger Corporation	865 33rd Ave. SW	Cedar Rapids	52404	Linn County
6/22/2015	First Supply	3110 Praierie Valley Ct. SW	Cedar Rapids	52404	Linn County
6/22/2015	Gustave A. Larson Company-Cedar Rapids	215 9th Street NW	Cedar Rapids	52405	Linn County
6/22/2015	Plumb Supply Company-Cedar Rapids	4700 J Street, S.W.	Cedar Rapids	52406	Linn County
6/22/2015	Republic Company	737 Charlotte Street	Davenport	52803	Linn County
6/22/2015	Dennis Company Inc.-Davenport	3016 Brady Street	Davenport	52803	Scott County
6/22/2015	Johnstone Supply Co-Davenport	5001 N Brady Street	Davenport	52806	Scott County
6/22/2015	Davenport Trane Parts Center	4801 Grand Avenue	Davenport	52806	Scott County
6/22/2015	Adel Wholesalers Inc	5414 Kelling Street	Davenport	52806	Scott County
6/22/2015	R.E. Michel	8645 Northwest Boulevard	Davenport	52806	Scott County
6/22/2015	Johnstone Supply	3700 Mississippi Avenue	Davenport	52807	Scott County

APPENDIX 8: 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 8: 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 8: 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 8: 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 8: CONTRACTOR COMPLIANCE POLICY

HVAC Contractor Employee Compliance Policy – MERCURY THERMOSTAT DISPOSAL

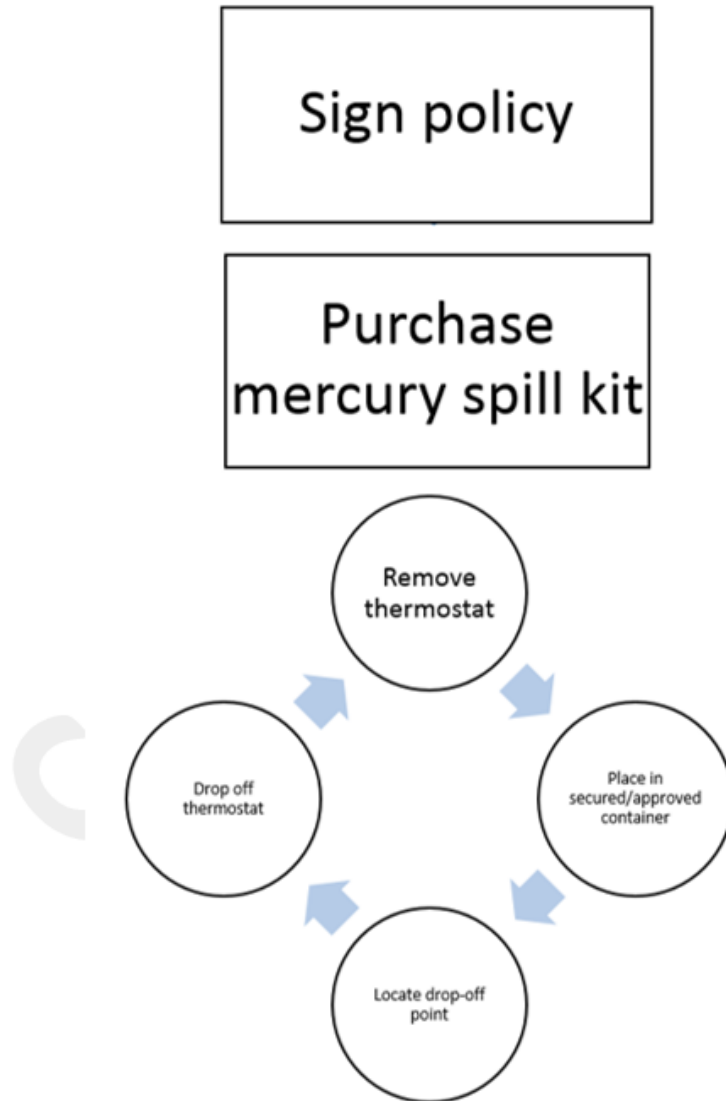
Appendix 2 - Table with state specific legislation

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 8: CONTRACTOR COMPLIANCE POLICY

HVAC Contractor Employee Compliance Policy – MERCURY THERMOSTAT DISPOSAL

Appendix 3 – Proper Disposal Procedure Flow Chart



APPENDIX 9: 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 9: 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 9: 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.

APPENDIX 10: MAY AESP EMAIL

Mercury Thermostats

Curtailment Providers Regulatory Obligations

When you direct install HVAC equipment you will likely generate waste mercury thermostats. U.S. EPA and state environmental agencies regulate the disposal of these devices.

Failure to properly manage waste mercury thermostats and recycle them could lead to fines up to **\$25,000 per violation**.

Each mercury thermostat contains at least 1,000 times more mercury than a CFL bulb. Recycle every mercury thermostat, every time.

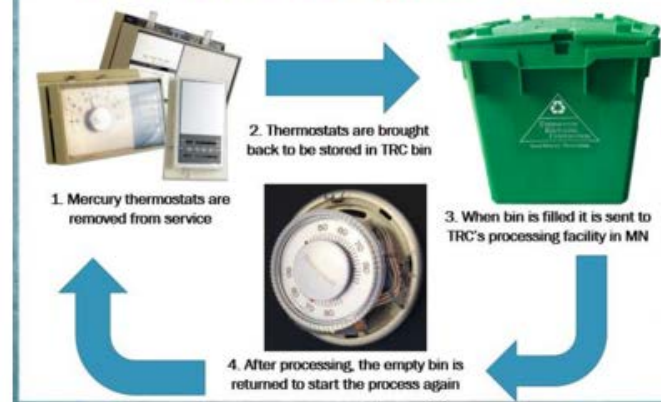
Take Advantage of the Non-profit Stewardship Program for Recycling

Sign up [online](#) by 5/31/15 and enter AESP in the Promo Code field to receive a free recycling container from TRC. The container holds approximately 100 mercury thermostats and contains all necessary materials for recurring shipments to TRC at no cost to you.

If you need more than one recycling container, or for more information about the program, please call me at (571) 302-0877 or [email](#) me directly.

[Order Free Bin](#)

How TRC's Program Works



Join Others in the Industry Using TRC's Program

Here's a sample of implementors that have taken advantage of TRC's program:

- Honeywell Utility Solutions (Wichita, KS; Deer Park, IL; Brooklyn Heights, OH)
- Franklin Energy (Chicago, IL; Grand Rapids, MI; Green Bay, WI)
- ClearResult (Downers Grove, IL; Negaunee, MI; Okemos, MI)
- Converge (Cincinnati, OH; Beltsville, MD; Mays Landing, NJ)

APPENDIX 11: AUGUST AESP EMAIL

Curtailment Provider Regulatory Obligations

The disposal of mercury thermostats is regulated under [federal](#) and [state law](#). Compliance begins with understanding your legal obligations nationally and in certain states. Any mercury thermostat removed from a commercial building must be recycled. Recycling requirements for mercury thermostats removed from residential buildings varies by state.

Don't contribute to mercury pollution. Integrate recycling into all of your projects that replace mercury thermostats.

Non-compliance in certain states can lead to **fines up to \$25,000** per incident. Besides, these devices contain at least **1,000 times more mercury** than a CFL bulb and they shouldn't be put in the trash.

//

Free Mercury Thermostat Recycling

The good news is that [Thermostat Recycling Corporation \(TRC\)](#) will offer free recycling containers and ongoing disposal to curtailment providers. **This program does not increase your costs and is completely free.**

To start free recycling, contact Ryan Kiscaden by 8/31 via [email](#) or at 571-302-0877.



//

Join Others in the Industry Using TRC's Program

Here's a sample of implementers that have taken advantage of TRC's program:

- Honeywell Utility Solutions (Wichita, KS; Deer Park, IL; Brooklyn Heights, OH)
- Franklin Energy (Chicago, IL; Grand Rapids, MI; Green Bay, WI)
- CleaResult (Downers Grove, IL; Negaunee, MI; Okemos, MI)
- Comverge (Cincinnati, OH; Beltsville, MD; Mays Landing, NJ)

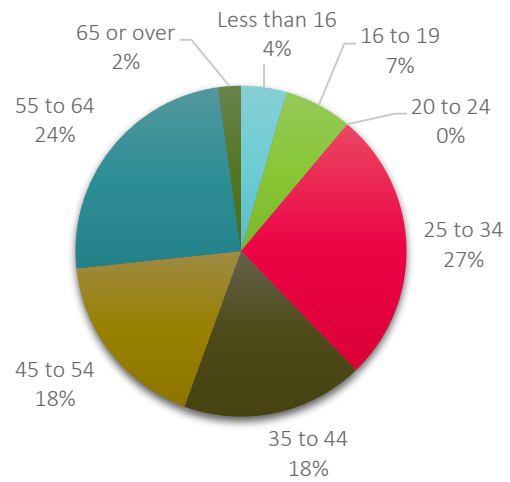
APPENDIX 12: TECHNICIAN SURVEY RAW RESULTS

DEMOGRAPHIC

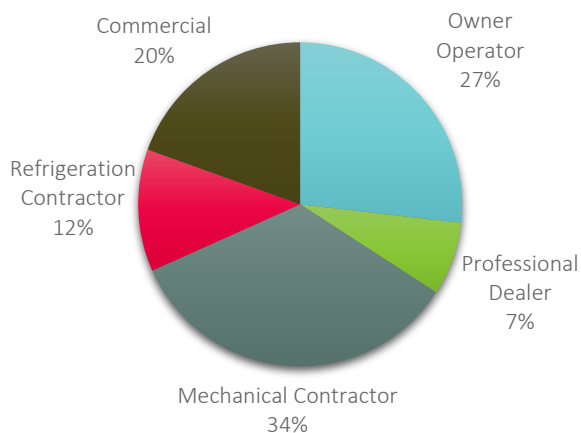
What is your gender?



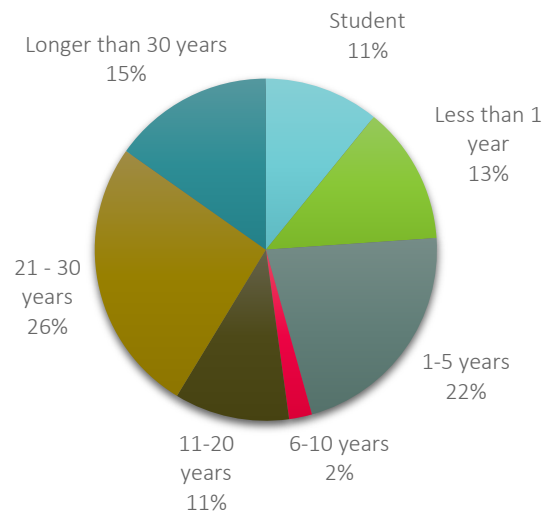
What is your current age?
(U.S. Census)



What is the nature of your business?



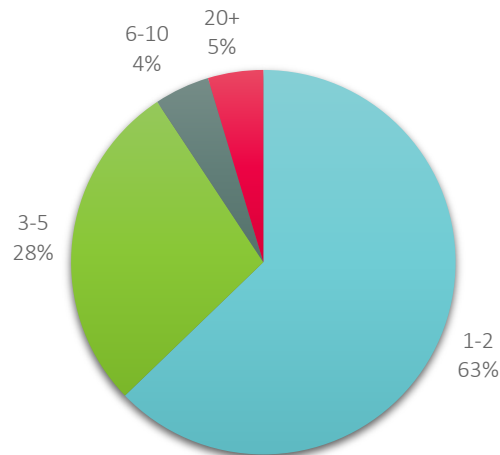
How long have you worked as a technician/contractor?



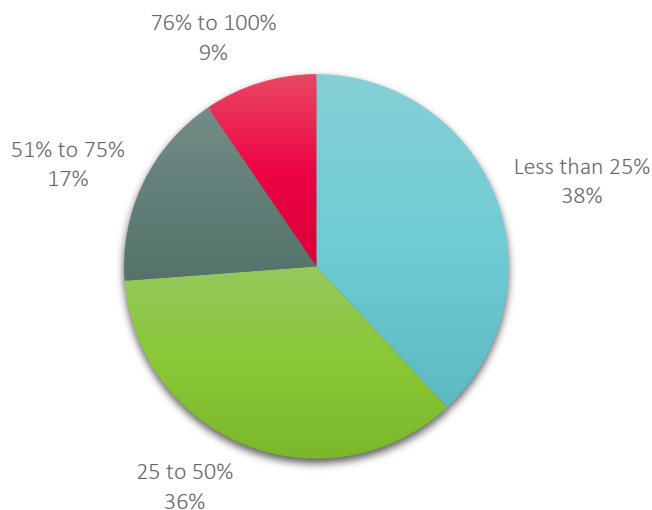
APPENDIX 12: TECHNICIAN SURVEY RAW RESULTS

THERMOSTAT REPLACEMENT

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



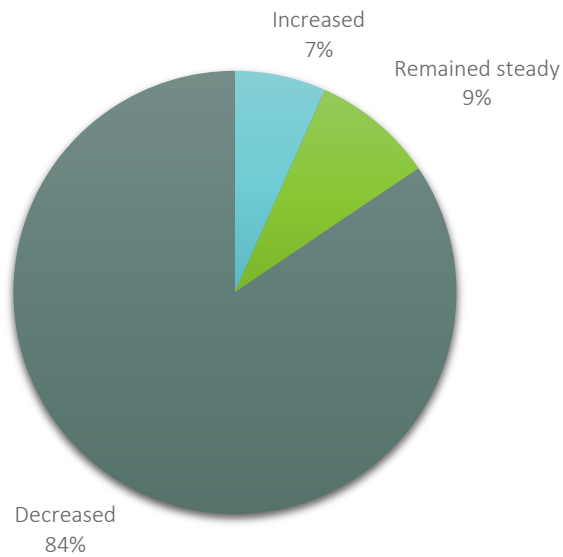
What percentage of the thermostats you replaced in 2014 would you estimate contained mercury?



APPENDIX 12: TECHNICIAN SURVEY RAW RESULTS

MERCURY CONTAINING THERMOSTAT PREVALENCE

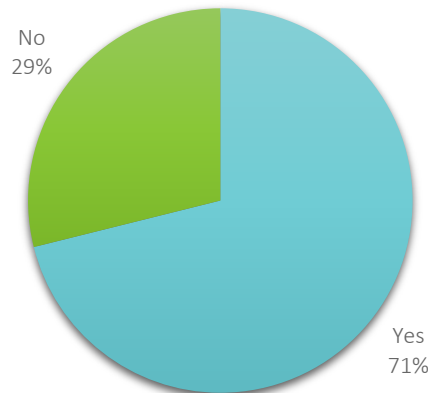
Would you say that during the time you have worked as a technician/contractor the number of mercury containing thermostats you see has...



APPENDIX 12: TECHNICIAN SURVEY RAW RESULTS

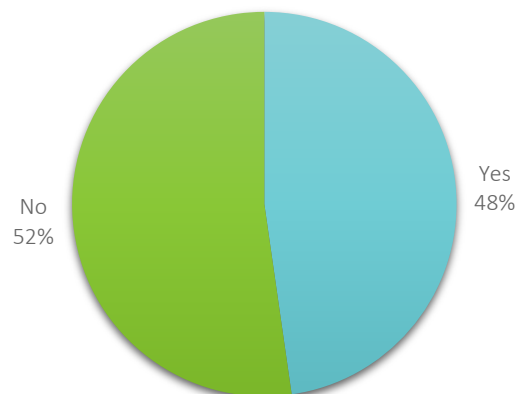
EMPLOYER POLICIES

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?

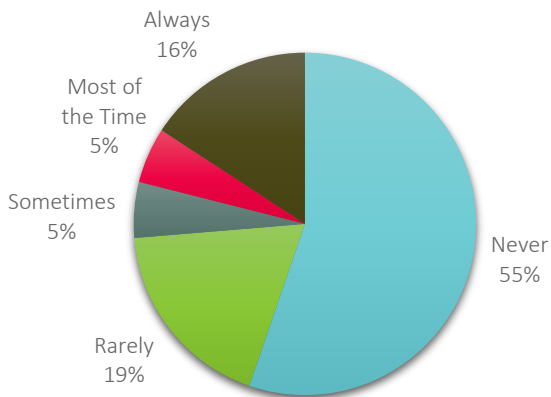


APPENDIX 12: TECHNICIAN SURVEY RAW RESULTS

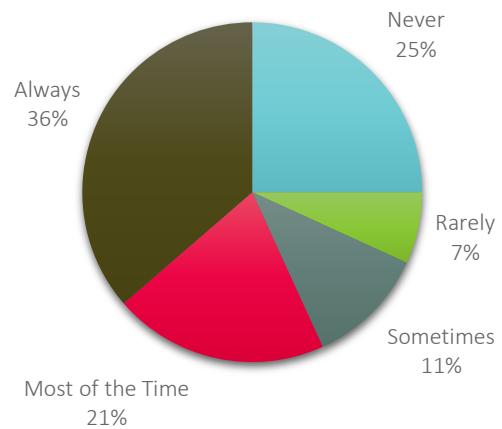
DISPOSAL

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

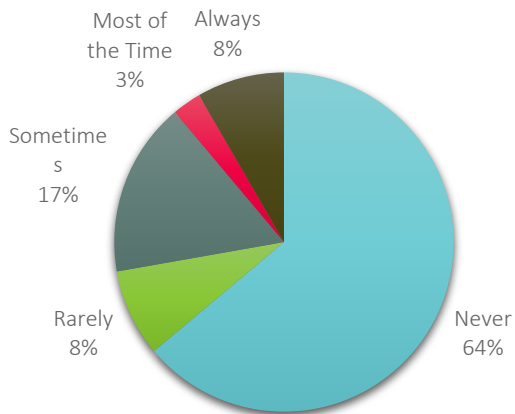
Company/office



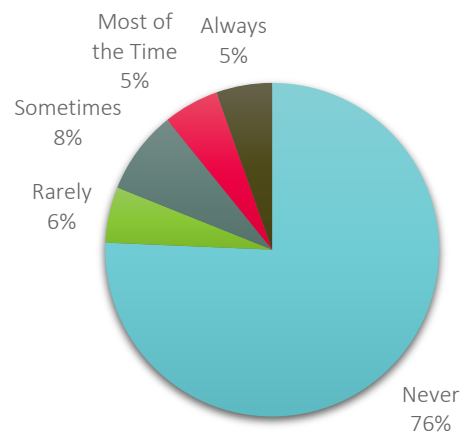
Wholesaler/Supply House



Hardware Store



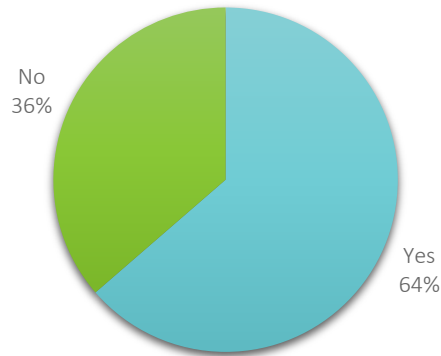
Trash



APPENDIX 12: TECHNICIAN SURVEY RAW RESULTS

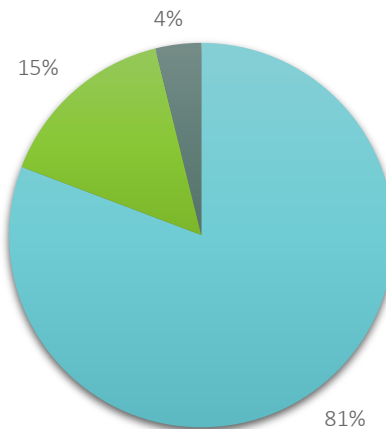
GREEN BIN UTILIZATION

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?



- Mercury is very harmful and we need to do more to keep it out of the environment.
- I don't know. I have no opinion about the harmfulness of mercury.
- I don't think it is very harmful.

APPENDIX 11: LOCATION AND COLLECTION DATA

(SORTED ALPHABETICALLY BY CITY)

Collection Location Name	Business Type	Street 1	City	Zip	County	Count-Bins at Location	Total Stats	Total Switches	Total Hg	Date(s) of Bin(s) Receipt
Butler Co Rcc	HHW Facility	25251 Hwy 3 East	Allison	50602	Butler County	1	0	0	0.00	
Johnstone Supply	Wholesalers	2701 Ford Street	Ames	50010	Story County	1	17	17	0.11	06/24/2015
Plumb Supply Company	Wholesalers	2408 E Lincoln Way	Ames	50010	Story County	1	6	7	0.04	01/21/2015
Wayne Dennis Supply Co	Wholesalers	2711 Ford St	Ames	50010	Story County	1	0	0	0.00	
Cass County Landfill & Recycling Center/Rcc	HHW Facility	65928 Jackson Road	Atlantic	50022	Cass County	1	0	0	0.00	
Total Maintenance, Inc	Contractor	1017 State Street	Bettendorf	52722	Scott County	1	94	106	0.66	05/01/2015
Metro Waste Authority/Rcc	HHW Facility	1105 Prairie Drive Sw	Bondurant	50035	Polk County	2	83	103	0.64	06/11/2015, 12/31/2015
Dennis Company Inc.	Wholesalers	1107 Jefferson Street	Burlington	52601	Des Moines County	1	0	0	0.00	
Plumbing & Heating Wholesale	Wholesalers	1212 Heine Ave	Carrol	51401	Carroll County	1	6	6	0.04	08/27/2015
Cedar Falls Utilities	Contractor	1 Utility Parkway	Cedar Falls	50613	Black Hawk County	1	3	3	0.02	05/14/2015
Comfort Products	Wholesalers	5529 Nordic Drive	Cedar Falls	50613	Black Hawk County	1	80	80	0.50	06/25/2015
Cedar Rapids Sheet Metal	Wholesalers	406 9th A Se	Cedar Rapids	52401	Linn County	2	31	33	0.20	10/05/2015
Dennis Company Inc.	Wholesalers	203 30th Street Drive Se	Cedar Rapids	52403	Linn County	1	6	7	0.04	06/24/2015

APPENDIX 11: LOCATION AND COLLECTION DATA

(SORTED ALPHABETICALLY BY CITY)

Ferguson	Wholesalers	4625 6th St Sw	Cedar Rapids	52404	Linn County	1	0	0	0.00	
First Supply	Wholesalers	3110 Prairie Valley Ct. Sw	Cedar Rapids	52404	Linn County	1	0	0	0.00	
Gustave A Larson	Wholesalers	215 9th Street Nw	Cedar Rapids	52405	Linn County	1	26	29	0.18	11/12/2015
Habegger Corporation	Wholesalers	865 33rd Ave. Sw	Cedar Rapids	52404	Linn County	1	0	0	0.00	
Johnstone Supply	Wholesalers	5040 Blairs Forest Way Ne	Cedar Rapids	52402	Linn County	1	0	0	0.00	
Plumb Supply Company	Wholesalers	4700 "J" St. S.W.	Cedar Rapids	52404	Linn County	2	0	0	0.00	
United Refrigeration	Wholesalers	515 8th Ave. S.E.	Cedar Rapids	52401	Linn County	1	41	62	0.38	04/27/2015
Rathbun Area Solid Waste Commission/Rcc	HHW Facility	3020 Mccarty Street	Centerville	52544	Appanoose County	2	6	9	0.06	12/31/2015
Cb Household Hazardous Waste Agency	HHW Facility	1805 Linden Street	Cherokee	51012	Cherokee County	3	3	3	0.02	04/30/2015
Landfill Of North Iowa/Rcc	HHW Facility	15942 Killdeer Ave	Clear Lake	50428	Cerro Gordo County	1	50	56	0.35	10/07/2015
Clinton County Sanitary Landfill/Rcc	HHW Facility	4292 220th Street	Clinton	52732	Clinton County	2	0	0	0.00	
Halvorson Trane	Wholesalers	2165 N.W. 108th St. Suite A	Clive	50325	Polk County	1	50	50	0.31	06/22/2015
Black Hills Energy	Contractor	1414 West Broadway	Council Bluffs	51501	Pottawattamie County	1	0	0	0.00	
Council Bluffs Recycling Center	HHW Facility	4441 Gifford Road	Council Bluffs	51501	Pottawattamie County	2	0	0	0.00	

APPENDIX 11: LOCATION AND COLLECTION DATA

(SORTED ALPHABETICALLY BY CITY)

Dennis Supply Co	Wholesalers	3326 Nebraska Ave	Council Bluffs	51501	Pottawattamie County	2	0	0	0.00	
Prairie Solid Waste Agency/Rcc	HHW Facility	1774 Lark Ave	Creston	50801	Union County	2	0	0	0.00	
Dennis Company Inc.	Wholesalers	3016 Brady Street	Davenport	52803	Scott County	1	11	11	0.07	06/25/2015
Hayman's Westside Ace Hardware	Retailers	1716 W. 4th Street	Davenport	52802	Scott County	1	0	0	0.00	
Johnstone Supply Co	Wholesalers	5001 N Brady Street	Davenport	52806	Scott County	2	383	482	2.99	04/16/2015, 05/01/2015, 10/12/2015, 10/15/2015
R.E. Michel	Wholesalers	8645 Northwest Boulevard	Davenport	52806	Scott County	1	0	0	0.00	
Republic Company	Wholesalers	737 Charlotte Street	Davenport	52803	Scott County	8	0	0	0.00	
Scott Co Rcc	HHW Facility	11555 110th Ave	Davenport	52804	Scott County	2	79	105	0.65	03/06/2015, 07/15/2015
Trane Parts	Wholesalers	4801 Grand Avenue	Davenport	52807	Scott County	2	0	0	0.00	
Air Management Supply	Wholesalers	1820 E. Sheridan Ave.	Des Moines	50316	Polk County	1	0	0	0.00	
Consolidated Materials Company	Wholesalers	600 Holcomb	Des Moines	50313	Polk County	6	0	0	0.00	
Gustave A Larson	Wholesalers	2510 Bell Avenue	Des Moines	50321	Polk County	1	1	1	0.01	11/09/2015
Heating And Cooling Supply Co	Wholesalers	3100 Delaware Avenue	Des Moines	50313	Polk County	1	15	17	0.11	06/19/2015

APPENDIX 11: LOCATION AND COLLECTION DATA

(SORTED ALPHABETICALLY BY CITY)

Nichols Controls & Supply, Inc.	Wholesalers	1721 Dean Ave	Des Moines	50316	Polk County	2	103	114	0.71	06/26/2015
Plumb Supply Company	Wholesalers	1622 Ne 51st Ave	Des Moines	50313	Polk County	1	7	7	0.04	06/17/2015
United Refrigeration	Wholesalers	927 8th Street	Des Moines	50309	Polk County	1	0	0	0.00	
Wayne Dennis Supply Co	Wholesalers	319 New York Ave	Des Moines	50313	Polk County	5	15	28	0.17	06/19/2015
Black Hills Energy	Contractor	1015 Cedar Cross Road	Dubuque	52003	Dubuque County	1	34	34	0.21	09/04/2015
Dubuque Metro Sanitary Landfill/Rcc	HHW Facility	925 Kerper Ct.	Dubuque	52001	Dubuque County	1	0	0	0.00	
Dubuque Supply	Wholesalers	585 White St / Po Box 117	Dubuque	52001	Dubuque County	2	64	89	0.55	12/22/2015
First Supply	Wholesalers	4949 Chavenelle Road	Dubuque	52002	Dubuque County	2	0	0	0.00	
Floyd-Mitchell-Chickasaw Solid Waste Mgmt Agency/Rcc	HHW Facility	3354 330th St	Elma	50628	Howard County	1	0	0	0.00	
Plumb Supply Company	Wholesalers	1565 Cardinal Ave.	Fort Dodge	50501	Webster County	1	0	0	0.00	
G Jurgensen Scrap Division, Llc	Contractor	3155 290th St	Fredericksburg	50630	Chickasaw County	1	2	2	0.01	08/19/2015
Great River Waste	HHW Facility	2092 303rd Ave	Ft. Madison	52627	Lee County	1	1	1	0.01	12/01/2015
Brandt Heating & Air Conditioning	Contractor	1203 Highland Court	Iowa City	52240	Johnson County	1	0	0	0.00	
Iowa City Rcc	HHW Facility	3900 Hebl Ave. S.W.	Iowa City	52246	Johnson County	2	58	59	0.37	05/04/2015

APPENDIX 11: LOCATION AND COLLECTION DATA

(SORTED ALPHABETICALLY BY CITY)

Plumb Supply Company	Wholesalers	225 E Prentiss	Iowa City	52240	Johnson County	2	0	0	0.00	
Plumbers Supply Co.	Wholesalers	72 Commercial Drive	Iowa City	52246	Johnson County	1	224	258	1.60	01/26/2015, 06/25/2015
Plumb Supply Company	Wholesalers	436 2nd Ave Ne	Le Mars	51031	Plymouth County	1	0	0	0.00	
Plymouth Co. Swa Rcc	HHW Facility	34898 150th Street	Lemars	51031	Plymouth County	1	0	0	0.00	
Cedar Rapids / Linn County Solid Waste Agency/Rcc	HHW Facility	1954 County Home Road	Marion	52302	Linn County	2	0	0	0.00	
Iowa Wholesale Supply	Wholesalers	3110 S. 6th Street	Marshalltown	50158	Marshall County	1	0	0	0.00	
Lennox Industries Inc.	Wholesalers	1402 East Main Street	Marshalltown	50158	Marshall County	2	0	0	0.00	
Plumb Supply Company	Wholesalers	207 Iowa Ave E	Marshalltown	50158	Marshall County	1	0	0	0.00	
Gustave A Larson	Wholesalers	802 South Jefferson	Mason City	50401	Cerro Gordo County	3	303	356	2.21	07/06/2015, 07/06/2015, 11/09/2015
Plumb Supply Company	Wholesalers	45 19th St. Sw	Mason City	50401	Cerro Gordo County	6	0	0	0.00	
Dickinson Rcc	HHW Facility	2260 220th St	Milford	51351	Dickinson County	2	19	19	0.12	10/15/2015
Woodbury Co Rcc	HHW Facility	2210 Ida Ave	Moville	50139	Warren County	1	0	0	0.00	
Kelly Supply Company	Wholesalers	1502 17th Avenue East	Oskaloosa	52577	Mahaska County	1	12	17	0.11	10/13/2015
Mahaska Co Rcc	HHW Facility	2979 Hwy 63	Oskaloosa	52577	Mahaska County	2	0	0	0.00	

APPENDIX 11: LOCATION AND COLLECTION DATA

(SORTED ALPHABETICALLY BY CITY)

Ottuma/Rapello Rrc	HHW Facility	2415 Emma St.	Ottumwa	52501	Wapello County	1	2	2	0.01	07/01/2015
Plumb Supply Company	Wholesalers	208 Se 9th St	Pella	50219	Marion County	1	0	0	0.00	
Semco Rcc	HHW Facility	29997 Hwy 78	Richland	52585	Keokuk County	2	0	0	0.00	
Nw Iowa Area Solid Waste Agency/Rcc	HHW Facility	4540 360th Street	Sheldon	51201	Obrien County	2	0	0	0.00	
Fremont Co Rcc	HHW Facility	2879 250th St	Sidney	51652	Fremont County	1	0	0	0.00	
Plumbing & Heating Wholesale	Wholesalers	1410 N. Main Ave Ne	Sioux Center	51250	Sioux County	1	0	0	0.00	
Dennis Supply Co	Wholesalers	300 W 7th St.	Sioux City	51103	Woodbury County	2	90	149	0.92	05/23/2015
Farrell's Heating & Air Conditioning Inc.	Contractor	405 W. 6th Street	Sioux City	51103	Woodbury County	1	78	103	0.64	12/03/2015
Johnstone Supply Co	Wholesalers	1401 Cunningham Dr.	Sioux City	51106	Woodbury County	1	82	143	0.89	11/10/2015
Plumbing & Heating Wholesale	Wholesalers	840 Gordon Dr	Sioux City	51101	Woodbury County	1	155	161	1.00	07/06/2015, 07/17/2015
Sioux City Citizen Convenience Center	HHW Facility	5800 28th Street	Sioux City	51105	Woodbury County	2	0	0	0.00	
Sioux City Winnelson	Wholesalers	204 Iowa St.	Sioux City	51101	Woodbury County	1	18	23	0.14	08/25/2015
Hanson's Plumbing & Heating	Contractor	101 East 5th Street	Spencer	51301	Clay County	1	11	12	0.07	03/23/2015
Northern Plains Regional	HHW Facility	418 2nd Avenue West	Spencer	51301	Clay County	2	0	0	0.00	

APPENDIX 11: LOCATION AND COLLECTION DATA

(SORTED ALPHABETICALLY BY CITY)

Collection Center										
Plumbing & Heating Wholesale	Wholesalers	Hwy 18 & 71, 4135 4th Ave W.	Spencer	51301	Clay County	1	0	0	0.00	
Plumb Supply Company	Wholesalers	3010 18th Street	Spirit Lake	51360	Dickinson County	1	0	0	0.00	
Monona Co. Rcc	HHW Facility	31342 Hwy 37	Turin	51040	Monona County	1	0	0	0.00	
Cfm Distributors, Inc.	Wholesalers	4137 109th Street	Urbandale	50322	Polk County	1	3	6	0.04	11/11/2015
Comfort Products	Wholesalers	4101 N.W. 121 Street	Urbandale	50323	Dallas County	1	5	12	0.07	05/01/2015, 07/21/2015
Dey Distributing	Wholesalers	3123 99th Street	Urbandale	50322	Polk County	1	0	0	0.00	
Johnstone Supply Co	Wholesalers	11000 Justin Dr	Urbandale	50322	Polk County	2	40	72	0.45	06/22/2015
Lennox Industries Inc.	Wholesalers	4301 - 121st Street	Urbandale	50323	Dallas County	2	0	0	0.00	
United Refrigeration	Wholesalers	4404 121st Street	Urbandale	50323	Dallas County	1	6	20	0.12	12/01/2015
Wayne Dennis Supply Co	Wholesalers	3155 99th St	Urbandale	50322	Polk County	1	48	72	0.45	06/22/2015
Air Management Supply - Nelson & Hagy	Wholesalers	622 Ansborough Ave	Waterloo	50701	Black Hawk County	1	13	16	0.10	08/18/2015
Dey Distributing	Wholesalers	3727 University Ave	Waterloo	50701	Black Hawk County	2	10	10	0.06	06/22/2015
Gubbels One Hour Heating And A/C	Contractor	1717 Falls Ave	Waterloo	50701	Black Hawk County	1	0	0	0.00	
Heating And Cooling Supply Co., Inc	Wholesalers	105 Broadway	Waterloo	50703	Black Hawk County	3	0	0	0.00	

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Johnstone Supply Co	Wholesalers	329 W 6th St.	Waterloo	50701	Black Hawk County	4	342	411	2.55	03/06/2015, 06/24/2015, 09/21/2015, 10/23/2015, 09/21/2015
Plumb Supply Company	Wholesalers	3338 West Airline Hwy.	Waterloo	50703	Black Hawk County	1	2	2	0.01	12/14/2015
Wayne Dennis Supply Co	Wholesalers	540 Ansborough Ave	Waterloo	50701	Black Hawk County	1	57	58	0.36	04/30/2015
Plumb Supply Company	Wholesalers	920 Frontier Rd	Waukee	50263	Dallas County	1	0	0	0.00	
Hamilton Co Rcc	HHW Facility	2605 Mcmurry Ave	Webster City	50595	Hamilton County	1	0	0	0.00	
West Branch, Iowa,	Demo	1892 Delta Ave.	West Branch	52358	Cedar County	1	0	0	0.00	