

**VIA EMAIL and US Mail**

March 30, 2016

Ms. Pauline Batarseh  
Policy Implementation and Support Branch  
California Department of Toxic Substances Control  
1001 "I" Street  
P.O. Box 806  
Sacramento, CA 95812-0806

Subject: Thermostat Recycling Corporation's 2015 Annual Report

Dear Ms. Batarseh:

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 California:

- The program collected **18,260 thermostats in 2015**. This was a 10% decrease compared to the number of thermostats collected in 2014.
- In 2015 the program **collected 214.84 pounds of mercury** in the state of California. Since 2001, the annual pounds of mercury collected in California has increased by an average of 43% per year. During the same time period, the pounds of mercury collected in the nation increased by 17% per year.
- TRC's website traffic continued to increase in 2015. There was a **98% increase of visitors** from California while TRC increased its total annual visitors by **71% compared to 2014**.
- The counties with the most bins returned in 2015 were **Los Angeles** (152 bins), **San Diego** (51 bins), and **Orange** (43 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

## CALIFORNIA STATE ANNUAL REPORT

FY 2015

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## COLLECTION DATA

In 2015, TRC recovered 214.84 pounds of mercury from the equivalent of 19,223 mercury thermostats. A total of 18,260 intact mercury thermostats and 34,652 mercury thermostat switches removed from thermostats were recovered from California collection locations in 2015. Mercury thermostats recovered from California locations averaged 1.80 switches per thermostat in 2015.

TRC recovered 16,051 thermostats from HVAC wholesale distributor collection locations, 1,096 from HHW locations, 913 from Contractor locations and 200 from retail locations (less than 1%).

By regulation, California set a performance requirement for manufacturers or groups of manufacturers to collect 113,850 thermostats in 2015.

### **Manufacturers Represented in the Program**

TRC reviewed collections by manufacturer for 2009 through 2015 and TRC recovered thermostats with brand name(s) owned by the following manufacturers currently participating in its collection program: Bard Manufacturing Company, Burnham Holdings, United Technologies Corporation (Carrier), Chromalox, Climate Master, Empire Comfort Systems, General Electric Corporation, W.W. Grainger, Honeywell International, Hunter Fan Company, Invensys, ITT Corporation, Original Charter Corp (Lear Siegler), Lennox International, Lux Products Corporation, Marley-Wylain Company, Daikin Applied representing Goodman and McQuay, Nortek HVAC, Rheem, Sears Holdings, Ingersoll Rand (Trane), Uponor, Inc., White-Rodgers (a division of Emerson Electric Co.), and Johnson Controls.

Note, both PSG Controls and Thomas & Betts are no longer a TRC member, and TRC has no record of recovering a mercury thermostat manufactured by Burnham Holdings, Chromolox, Crane Company, Lear Siegler, Taco, The Marley-Wylain Company, TPI Corporation, Uponor from a collection location located in California.

# COLLECTION DATA

## EXHIBIT 1: 2015 CALIFORNIA COLLECTIONS BY MANUFACTURER/BRAND

Brand Holder	Thermostats	Count Switches	Pounds Mercury
Bard	1	4	0.02
Burnham Holdings	0	0	0.00
Carrier	384	1091	6.76
Chromolox	0	0	0.00
Climate Master, Inc.	6	18	0.11
Crane Company	0	0	0.00
Empire Comfort Systems	4	4	0.02
General Electric Corporation	135	388	2.41
Goodman Global	8	18	0.11
Grainger	4	4	0.02
Honeywell	13849	25720	159.46
Hunter Fan	3	3	0.02
Invensys	411	478	2.96
ITT Corporation	87	92	0.57
Lear Seigler	0	0	0.00
Lennox	111	192	1.19
Lux Products	422	439	2.72
McQuay International	5	12	0.07
Nordyne Corporation	2	6	0.04
Rheem	60	157	0.97
Sears Holdings	78	85	0.53
Taco	0	0	0.00
The Marley - Wylain Company	0	0	0.00
TPI Corporation	0	0	0.00
Trane	286	744	4.61
Uponor	0	0	0.00
Vaillant Corporation	4	4	0.02
White Rogers	2251	2961	18.36
York/Johnson Controls	32	137	0.85
----- Non-Member Brands -----			
CAM STAT	1	1	0.01
CHRYSLER	1	2	0.01
Climatrol	1	1	0.01
COMFORT ZONE	1	1	0.01
ENERGY SAVING HEAT PUMP	1	4	0.02
FEDDER	1	4	0.02
Friedrich	1	3	0.02
Gemline	1	1	0.01
JADE	1	2	0.01
Mars	2	4	0.02
Mercoid	1	1	0.01
PIONEER	1	1	0.01
Seco	2	2	0.01
Singer	1	1	0.01
sjc	1	4	0.02
wards	3	3	0.02
----- NOM (Manufacturer not Identifiable) -----			
NOM	97	331	2.05
Loose Bulbs	0	1729	10.72
<b>TOTAL</b>	<b>18,260</b>	<b>34,652</b>	<b>214.84</b>

# 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 and HVAC contractors/technicians.

### TRC Collection Locations

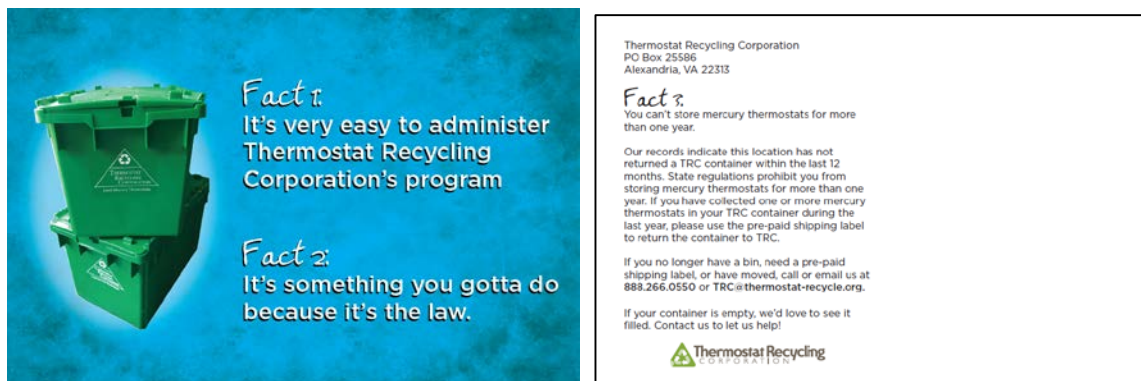
- To encourage collection point participation and to stimulate the timely return of TRC collection containers, TRC mailed reminder postcards (Exhibit 2) to collection points that had not returned a TRC container within the last 12 months (in accordance with California's Universal Waste Regulations). TRC mailed 266 reminders in March, 192 in July, and 277 in November.
- In June and July, sales letters were sent to wholesale locations without TRC bins in the state of California (Appendix 1). Before the letters were sent, TRC sent a separate letter to the CEOs of these companies informing them of the impending letter to their branches and of their legal requirements regarding mercury thermostat disposal (Appendix 2). The letter was sent to the following distributors 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:
  - 27 WinWholesale branches (6/6). TRC received no response.
  - 28 Hajoca branches (6/30). TRC received no response.
  - 5 Keller Supply branches (6/30). All California branches were signed up as a result of this letter.
  - 11 Pace Supply branches (6/30). The CEO responded that Pace Supply discontinued all non-plumbing related merchandise five years ago including thermostats, thereby eliminating the mercury thermostat collection mandate for their stores.
  - 6 Smardan Supply branches (6/30). All California branches were signed up as a result of this letter.



## PROGRAM EDUCATION AND OUTREACH

- 9 AC Pro branches (7/9). Five of these branches have been signed up in California since this letter was sent.
- On 7/17 TRC mailed a letter to 28 Heating, Air-conditioning & Refrigeration Distributors International (HARDI) member CEOs with headquarters in California. 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 3)
- On 10/28 TRC sent sales letters to 21 Winsupply wholesale locations without TRC bins in the state of California. 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 4)

### 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 created a 4x6 loyalty postcard to create awareness of the "Recycle. Scratch. Earn" program at participating HVAC wholesaler locations throughout the state (Exhibit 3). TRC

## PROGRAM EDUCATION AND OUTREACH

sourced a mailing list of HVAC contracting business contacts with two - eight employees located within 5 miles of a location participating in the loyalty program. A total of 773 postcards were sent in March, 734 were sent in July, and 592 were sent in December.

- In December TRC mailed a full color letter to 616 HVAC contracting business contacts with two to nine employees. (Appendix 5)

### EXHIBIT 3: LOYALTY PROGRAM POSTCARD

#### Front Side:



#### Back Side:

Thermostat Recycling Corporation  
PO Box 25586  
Alexandria, VA 22313

Thermostat Recycling Corporation (TRC) has partnered with HVAC wholesale distributors throughout California to offer a new loyalty rewards program.

Now, every time you recycle a mercury thermostat at a participating location you will earn points redeemable for brand-name merchandise.

Recycle as few as eight to earn \$25 in merchandise, or bank your points to save for higher-value items!

Visit [www.recycle-scratch-earn.com](http://www.recycle-scratch-earn.com) to see a full list of participating locations near you.

## ADVERTISING

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

## PROGRAM EDUCATION AND OUTREACH

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

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

### Print Advertising

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

- ***HVAC Insider Goldenwest***, which has 6,960 subscribers in California and is published quarterly. The advertisement was a 2-color 1/2pg and ran in all issues for the year. (Exhibit 4)
- ***Indoor Comfort News*** is published by the Institute of Heating Air Conditioning Industries Inc. (IHACI). IHACI is California's largest HVAC trade group and its monthly magazine has approximately 17,000 subscribers in California. TRC ran a 2-color 1/8pg ad in the February – April and October - December issues to highlight the HVAC technician loyalty program. The ad also included logos of all distributors participating in the program (Exhibit 5).
- ***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 6). Johnstone Supply has 37 locations in California. 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 7)

## PROGRAM EDUCATION AND OUTREACH

- ***HVACR Business Magazine***, a national publication with approximately 34,000 qualified subscribers, of which approximately 3,270 are in California. TRC ran a full color 1/4 page advertisement in January, March and July. (Exhibit 8)

### EXHIBIT 4: HVAC INSIDER GOLDENWEST



## PROGRAM EDUCATION AND OUTREACH

### EXHIBIT 5: INDOOR COMFORT NEWS AD



**RECYCLE  
SCRATCH  
EARN!**

**Earn premium merchandise for recycling mercury thermostats!**

Recycle 8 mercury thermostats to earn \$25 in merchandise, or bank your points to save for higher-value items the more you recycle!

Available at participating California locations:

**USAirconditioning DISTRIBUTORS**  
The world's largest premium brand HVAC equipment distributor

**PartsPlus**

**R.E. MICHEL COMPANY**

**JOHNSTONE SUPPLY**  
Select Johnstone Supply locations

**SLAKEY BROTHERS**

**UNITED REFRIGERATION INC.**

Visit [www.recycle-scratch-earn.com](http://www.recycle-scratch-earn.com) for official rules, merchandise offered, and a full list of participating locations.

### EXHIBIT 6: JOHNSTONE SUPPLY FLYER AD



**RECYCLE and WIN!**

Recycle Mercury Thermostats for a Chance to Win a Toshiba 40L310U 40" TV!

Your local participating Johnstone has a TV to win!  
To enter, ask at the counter.

**BONUS:** Earn an **ADDITIONAL ENTRY** for every Honeywell thermostat purchased!

**JOHNSTONE SUPPLY**

Prizes are awarded on a first-come, first-served basis. Prizes are not redeemable for cash. Void where prohibited. ©2015 Johnstone Supply. All rights reserved. Prizes are awarded on a first-come, first-served basis. Prizes are not redeemable for cash. Void where prohibited. ©2015 Johnstone Supply. All rights reserved.



# PROGRAM EDUCATION AND OUTREACH

## EXHIBIT 7: DISTRIBUTION CENTER MAGAZINE ADS

May:



December:



## EXHIBIT 8: HVACR BUSINESS MAGAZINE AD



# PROGRAM EDUCATION AND OUTREACH

## 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 9)
- *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 9)
- *NATE Enewsletter*, sent bi-monthly to 31,900 opt-in subscribers. TRC ran a text ad that received a 0.14% CTR.

### EXHIBIT 9: ACHR NEWS AND DISTRIBUTION CENTER ENEWSLETTER AD



## PROGRAM EDUCATION AND OUTREACH

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 10). 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 11)
- Contracting Business Magazine’s dedicated Email Blast, which was sent twice with different messaging to opt-in subscribers in states with disposal bans, including California. The January mailing was sent to 5,980 subscribers and received a 25% open rate and a 0.5% CTR (Appendix 6), while the June mailing was sent to 8,970 subscribers and received a 13% open rate and a 0.5% CTR (Appendix 7).
- ACHRNews.com, a website that assists the decision-makers from all branches of the HVAC industry including contractors, manufacturers, distributors, parts and supply wholesalers, and service companies. More than 241,852 HVACR professionals visit the website every month, totaling more than 308,911 monthly website visits. TRC ran a Topic Sponsorship ad in January, February and September that resulted in an average 0.14% CTR. (Exhibit 12)
- 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 9)
- 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 11)

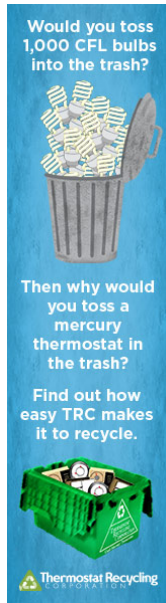
### EXHIBIT 10: HVACR BUSINESS “AHEAD OF THE CURVE” ENEWSLETTER AD



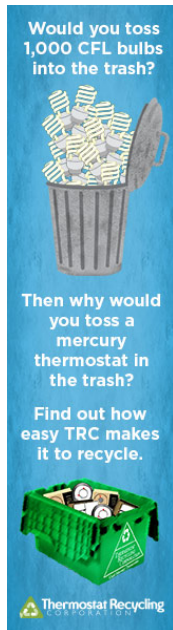


# PROGRAM EDUCATION AND OUTREACH

## EXHIBIT 11: HVACRBUSINESS.COM AND HVAC-TALK.COM AD



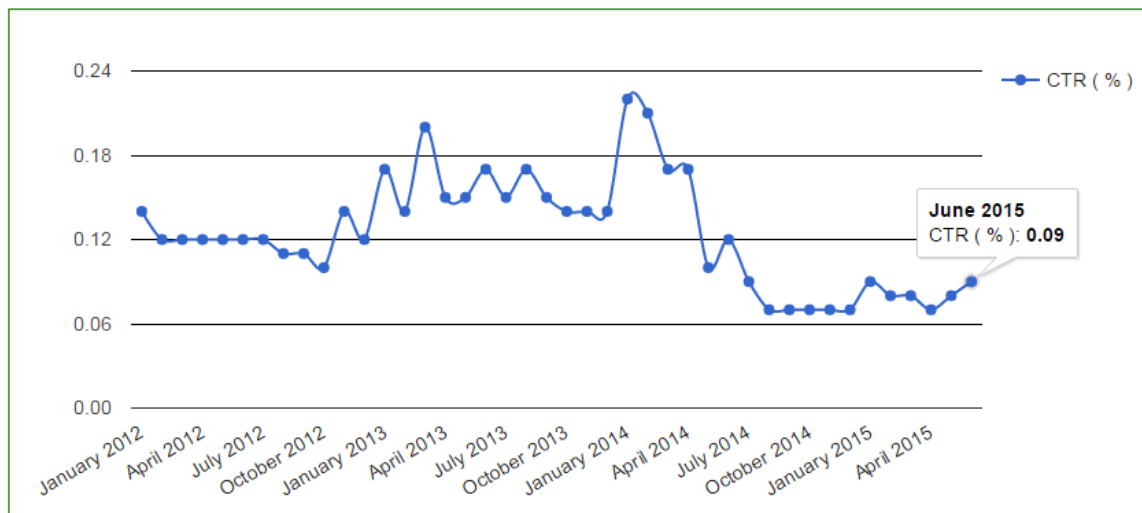
## EXHIBIT 12: ACHRNEWS.COM TOPIC SPONSORSHIP ADS



## PROGRAM EDUCATION AND OUTREACH

Exhibit 13 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 13: GOOGLE DISPLAY'S BENCHMARK TOOL



Additionally, the current average open rate for emails is 14%, and the average CTR in emails is 1.6%<sup>1</sup>, 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 California (Exhibit 14). 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.).

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

# PROGRAM EDUCATION AND OUTREACH

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 California campaign yielded 3.2 million impressions with an average CTR of 0.5%.

## EXHIBIT 14: 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:

- Indoor Comfort News (25,000 circulation)
- The Air Conditioning and Refrigeration (ACHR) News (370,378 reach), including a front page editorial article (Exhibit 15)
- Distribution Center (11,000 circulation)

# PROGRAM EDUCATION AND OUTREACH

- 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 the spring of 2016 in Distribution Center Magazine. There were hundreds of eligible HARDI members considered, making this a highly competitive group.

## EXHIBIT 15: ACHR NEWS FRONT PAGE EDITORIAL ARTICLE

**the NEWS**  
THE HVACR CONTRACTOR'S WEEKLY NEWSMAGAZINE SINCE 1926  
AUGUST 21, 2018 | \$4.95 | ONLINE AT WWW.ACHRNEWS.COM

### Teaching Greenhorn Techs Green Technologies

*Contractors gain a competitive edge through renewable training and education*

**BY NICK KOSCOVSK**  
**THE NEWS EXPLAINS**

The renewable energy sector of the HVAC marketplace continues to make strides in acceptance and understanding these concepts, and the good is in the numbers. For Waterfurnace Inc. Inc., more than 1 million geothermal air ground source heat pumps are used in U.S. residential, commercial, and government buildings. And, that number is growing as U.S. homeowners install approximately 50,000 more geothermal heat pumps annually. Similarly, both wind and solar installations have risen steadily over the last decade, with solar accounting for 3.2 percent of the nation's new generating capacity in 2014, leading the efforts of both wind energy and solar for the second consecutive year, per Scientific American.

**PEOPLE OF THE SUN** As renewable energy installations continue to grow in popularity, HVAC contractors are becoming familiar with the solar industry and the knowledge necessary to complete projects. PHOTO COURTESY OF NICK KOSCOVSK. (COURTESY WWW.ACHRNEWS.COM)

### Industry Unites Against Mercury Pollution

*Strategic partnerships, contests boost mercury thermostat collection numbers*

**BY NICK KOSCOVSK**  
**THE NEWS EXPLAINS**

U ntil a few decades ago, the dangers of mercury exposure are well known today. According to the National Resources Defense Council, mercury is used as a component in many consumer products, like fluorescent, incandescent, and electronic devices, and can escape as a pollutant when these products are manufactured, broken during use, or, perhaps most importantly, incorrectly handled and disposed of at the end of the product's useful life. Mercury pollution becomes a serious threat when it settles into oceans and waterways, where it builds up in fish before it's often consumed by people. When mercury enters the human body it acts as a neurotoxin, harming the brain and nervous system. Mercury poisoning has been known to cause memory loss, tremors, and vision loss, and it can adversely affect fertility and blood pressure.

Since 1998, the Thermostat Recycling Corp. (TRC) has worked to collect thermostats containing mercury and properly dispose of the harmful substance by using HVAC technicians as collection points for contractors. "It's a single source distribution system," said Mark Villalobos, executive director, TRC. "Contractors are bringing products back to distribution."

TRC's 2018 Mercury Recovery Index (MRI) reports shows a 12 percent increase in mercury collection numbers.

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### Changing Seasons: How IAQ Promotes Better Business

SEPTEMBER 10-11 PM EST Register for FREE at [webinars.achrnews.com](http://webinars.achrnews.com)

# PROGRAM EDUCATION AND OUTREACH

## 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 98% increase of visitors from California. The state ranked 1st among the country in terms of its share of visitors to TRC's website (21% of all website visitors were from California). 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 California:

- **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 22nd: HHWIE Forum Presentation (NEW!)**  
TRC staff presented an overview of TRC's program to southern California HHW's.
- **January 25th – 28th: Air-Conditioning, Heating, Refrigerating Exposition.**  
*Chicago, IL*  
TRC staff attended and exhibited at the AHRI (Air-Conditioning, Heating, and Refrigeration

## PROGRAM EDUCATION AND OUTREACH

Institute) Expo in Chicago. The show brought in over 2,000 exhibitors and 60,000 HVAC/R professionals, including more than 1,890 in the West coast region.

- **February 9<sup>th</sup> – 13<sup>th</sup>: 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 12<sup>th</sup>: 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 26<sup>th</sup>: 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 3<sup>rd</sup>-4<sup>th</sup>: 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 37 in California. 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 15<sup>th</sup> – 18<sup>th</sup>: 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.

## PROGRAM EDUCATION AND OUTREACH

- **March 27<sup>th</sup>: YouTube Video Presentation (NEW!)**

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

- **March 25<sup>th</sup>: ACCA Town Hall Webinar (NEW!)**

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

- **April 7<sup>th</sup> – 10<sup>th</sup>: Used Oil/HHW Training Event (NEW!)**

*Universal City, CA*

TRC staff exhibited at the event, sponsored by CalRecycle and California Department of Toxic Substance Controls.

- **April 12<sup>th</sup>-14<sup>th</sup>: 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 28<sup>th</sup>: 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 14<sup>th</sup> – 16<sup>th</sup>: 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 6<sup>th</sup>: 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.

## PROGRAM EDUCATION AND OUTREACH

- **October 7<sup>th</sup>: 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-round to more than 23,000 members in 85 countries; plus an additional 200,000 workplace professionals. TRC staff attended for the first time.

- **November 3<sup>rd</sup>-5<sup>th</sup>: Institute of Heating and Air Conditioning Industries (IHACI) Trade Show**

*Pasadena, CA*

IHACI is California's largest HVAC trade group and annually sponsors a one-day trade show at the Pasadena Convention Center. Attended by approximately 5,000 contractors and technicians, this is California's largest HVAC trade show. TRC raffled a cordless drill driver to increase booth traffic and attract participants to a survey designed to analyze contractor behavior with mercury thermostats.

- **December 5<sup>th</sup> – 8<sup>th</sup>: 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."



# SUMMARY OF ADDITIONAL EDUCATION AND OUTREACH BY CHANNEL

## 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 16).

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

### EXHIBIT 16: FERGUSON NATIONAL EMAIL

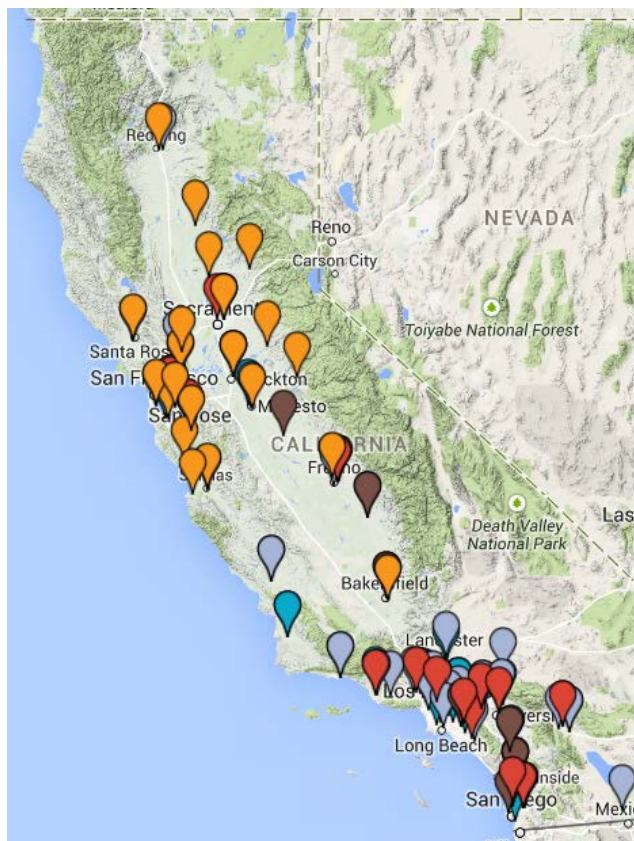


# SUMMARY OF ADDITIONAL EDUCATION AND OUTREACH BY CHANNEL

## Technician Loyalty Program

In 2014 TRC developed, “Recycle. Scratch. Earn,” an HVAC technician loyalty program. The program was implemented at select wholesale distributor locations and is accessible in all major markets in California and continued to run throughout 2015 (Exhibit 15).

### EXHIBIT 17: HVAC TECHNICIAN LOYALTY PROGRAM PARTICIPATING LOCATION MAP



The program offers a scratch card worth 600 points for each mercury thermostat returned. Each scratch card contains a unique serial number to be entered online. Upon redeeming 8 scratch cards (4,800 points), participants are eligible to redeem the points for brand-name merchandise. Participants can also bank points for higher-value merchandise.

## SUMMARY OF ADDITIONAL EDUCATION AND OUTREACH BY CHANNEL

Six HVAC wholesale distributors were invited to participate in the program based on markets served, as well as a demonstrated ability to support the program at each branch location.

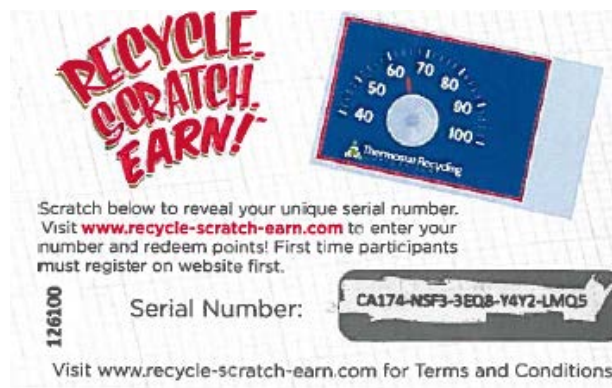
The six wholesale distributors participating have a total of 119 total branch locations in California:

- USACD – 35 locations
- R.E. Michel Company – 12 locations
- Lennox Parts Plus – 16 locations
- Johnstone Supply San Diego Owner Group – 5 locations
- Johnstone Supply Fresno Owner Group – 5 locations
- United Refrigeration – 25 locations
- Slakey Brothers – 21 locations

The loyalty program includes a custom-made website ([www.recycle-scratch-earn.com](http://www.recycle-scratch-earn.com)) for participants to enter/redeem points and view merchandise from the online catalogue.

TRC provided to all participating locations the materials necessary to implement the program, including the actual scratch cards (Exhibit 18), in-store program brochures (Appendix 8), and flyers (Exhibit 19).

### EXHIBIT 18: LOYALTY PROGRAM SCRATCH CARD



# SUMMARY OF ADDITIONAL EDUCATION AND OUTREACH BY CHANNEL

## EXHIBIT 19: LOYALTY PROGRAM FLYER



At program launch in September 2014, TRC committed to offering a quarterly employee incentive to participating branch locations for one full calendar year. Each bin a distributor branch location returns with a minimum of 40 mercury thermostats earned entry into a drawing for \$500.

### Johnstone Supply National TV Giveaway Promotion

In September, Johnstone Supply launched a 40 inch TV giveaway at 383 of their stores nationwide, including 37 in California. 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 20) for the TRC merchandise display to promote awareness of the program in stores. A 4x6 sized postcard (Exhibit 21) was then sent to all Johnstone locations on 10/15 as a reminder to send in their bins after the TV promotion ended.

# SUMMARY OF ADDITIONAL EDUCATION AND OUTREACH BY CHANNEL

## EXHIBIT 20: JOHNSTONE SUPPLY TV GIVEAWAY POSTER AND MERCHANDISE HEADER



## EXHIBIT 21: 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



## SUMMARY OF ADDITIONAL EDUCATION AND OUTREACH BY CHANNEL

participation in the program (Exhibit 22). The competition ran May 1<sup>st</sup> – October 31<sup>st</sup> and participating locations shipped a total of 432lbs of mercury during the competition.

### EXHIBIT 22: BMOP INVITATION TO HARDI MEMBERS

#### Outside:



#### Inside:

#### Sign Up to Compete:

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

#### 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.



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

**\$500 Store Incentives Available!**

Visit [www.thermostat-recycle.org/bmop](http://www.thermostat-recycle.org/bmop) for more details.

### Location calls

TRC staff made 87 phone calls to collection locations in California 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 9 for a list of locations contacted.

### Site Visits

A total of 66 California 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

## SUMMARY OF ADDITIONAL EDUCATION AND OUTREACH BY CHANNEL

bin and schedule a shipment if applicable, and supply any other necessary materials. See Appendix 10 for a complete list of locations visited.

### 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 23). 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 23: TRC MERCHANDISE DISPLAY



# SUMMARY OF ADDITIONAL EDUCATION AND OUTREACH BY CHANNEL

## HVAC CONTRACTOR OUTREACH

### Contractor Environmental Policy

TRC staff helped develop a draft model HVAC contractor environmental policy and shared it with the trade group, ACCA (Appendix 11). TRC's goal is to work with ACCA and other trade groups to provide this template as a service for contractor's employee handbooks.

### Loyalty Program Participants

On 5/29 TRC sent an email to the 179 participants registered with the HVAC technician loyalty program (Appendix 12). The email was a reminder about the loyalty program and highlighted the prizes people had been redeeming, including an Amazon Kindle Fire. The purpose was to showcase how recycling efforts can pay off in receiving high-value prizes through the program.

### PHCC of CA

In February of 2015 TRC staff had a call with the California Plumbing-Heating-Cooling Contractors Association (PHCC) to discuss collaboration opportunities. Both TRC and PHCC discussed that a membership was not the best path forward but instead agreed to review upcoming trade shows as potential for brand awareness.

## HOUSEHOLD HAZARDOUS WASTE FACILITY OUTREACH

In September TRC developed a tri-fold brochure specifically for household hazardous waste (HHW) facilities in California to target their customers (Exhibit 24). It included information on how to locate HHW facilities using TRC's website and information on how to properly dispose of mercury thermostats. The brochure PDF is now available on TRC's website as a promotional toolkit download, and hard copies are available by request. TRC also provided 500 brochures to the County of Siskiyou General Services, Yreka to use at an event they were hosting.



# SUMMARY OF ADDITIONAL EDUCATION AND OUTREACH BY CHANNEL

Additionally, TRC provided the California Product Stewardship Council a PDF of the brochure to include in an email blast. This resulted in making contact with the City of Oakland Public Works Department. TRC sent them 200 HHW brochures to share with property owners of multi-family properties in Oakland. The department also included a digital version on their property manager's toolkit online.

## EXHIBIT 24: HHW TRI-FOLD BROCHURE

### Outside:



### Inside:



# SUMMARY OF ADDITIONAL EDUCATION AND OUTREACH BY CHANNEL

## UTILITY PROGRAM/IMPLEMENTOR OUTREACH

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

TRC staff wrote model utility implementer RFP requirements to share with utility companies (Appendix 13). The focus of the model is to help utilities expand environmental compliance requirements for their implementers. This language would essentially be a term of agreement between the utility company and the hired implementer. TRC also began engagement with two non-TRC members interested in the recycling mercury issue, ecobee and NEST, by submitting to them MOU's. All parties involved hope to do more with the TRC program.

In April TRC signed up the largest solar installer in the state, SolarCity, to be part of the program. A total of 31 locations were sent TRC recycling bins.

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 14). TRC sent a follow up email in August (Appendix 15). 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, including the

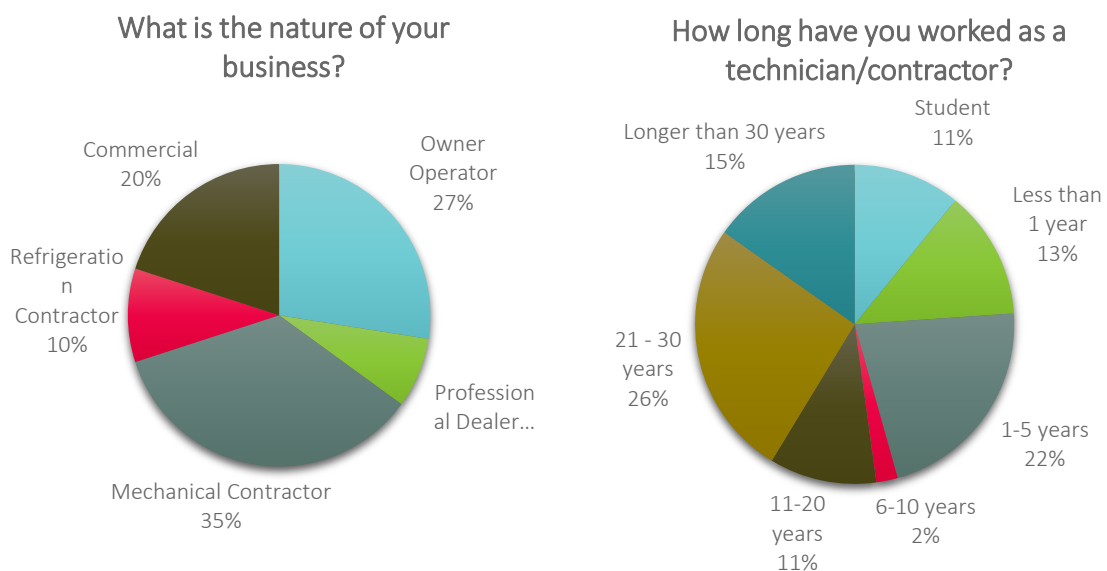
## SUMMARY OF ADDITIONAL EDUCATION AND OUTREACH BY CHANNEL

IHACI show in California. 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:



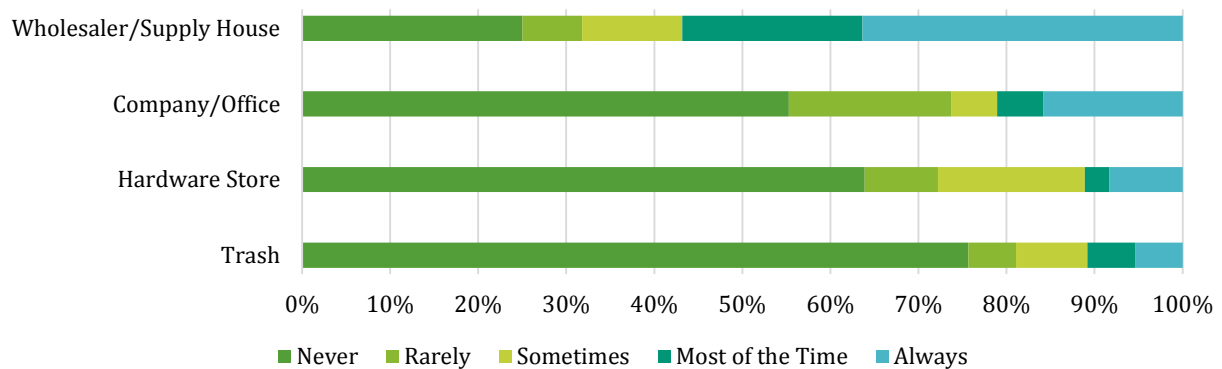
The demographic data shows that there was a widely varied mix of business sectors and experience levels. This means that the findings from the survey can be applied generally without a need for demographic qualifiers. The largest business sector was Mechanical Contractor followed by Owner Operator. These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

## SUMMARY OF ADDITIONAL EDUCATION AND OUTREACH BY CHANNEL

### Disposal

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

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

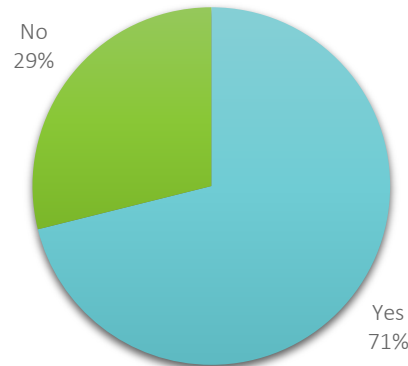


The above chart shows that the main location for the disposal of mercury containing thermostats is at the wholesaler. It also points out that roughly 25% of technicians do at least occasionally throw the thermostats in the trash. The data shows that when technicians do dispose of the mercury containing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

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

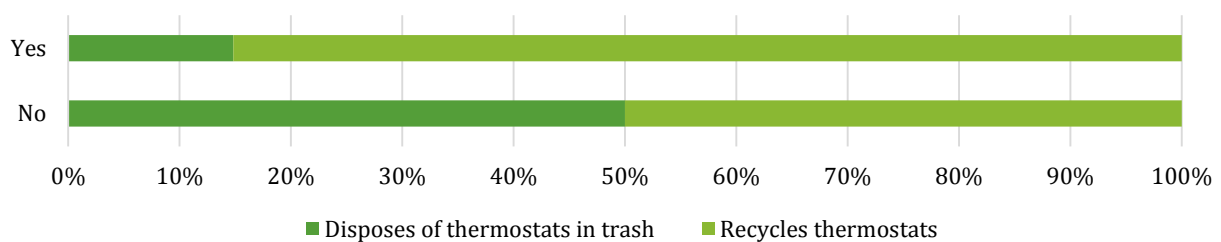
## SUMMARY OF ADDITIONAL EDUCATION AND OUTREACH BY CHANNEL

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?**



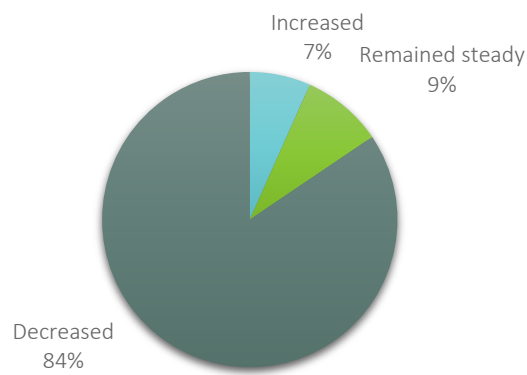
The above chart shows that 85% of technicians whose employer requires recycling of mercury containing thermostats actually recycle. By contrast, only 50% recycle without employer requirement. This strongly suggests that employer policies do have a substantive impact on recycling by employees.

## SUMMARY OF ADDITIONAL EDUCATION AND OUTREACH BY CHANNEL

### 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...



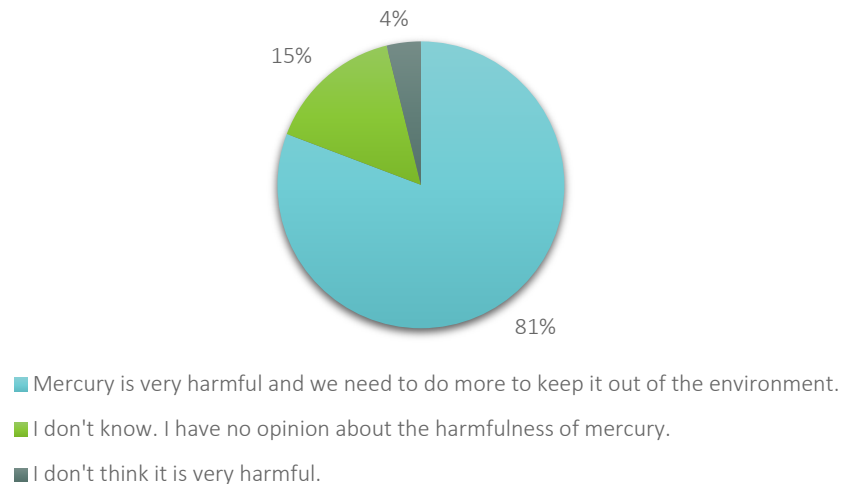
When asked how the number of mercury containing thermostats encountered during their career had changed most technicians felt that there had been a decrease. This leads to the conclusion that the number of available thermostats has also decreased.

### 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.

## SUMMARY OF ADDITIONAL EDUCATION AND OUTREACH BY CHANNEL

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 16 for survey raw results.

# NATIONAL PROGRAM EXPENSES

Below is a summary of TRC's national program expenses for 2015. A copy of TRC's 2014 IRS Form 990 is included in Appendix 21.

## EXHIBIT 25: 2015 PROGRAM ADMINISTRATIVE EXPENSES

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

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.



## NATIONAL PROGRAM EXPENSES

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

### EXHIBIT 26: 2015 PROGRAM EXPENSES WITH CALIFORNIA SPECIFIC COSTS

Program Component	Total Expenses	CA
TRC Staff and Administration	\$ 625,204.88	\$ 44,137.29
Recycling Costs	\$ 347,555.25	\$ 31,955.00
Incentive/Promotional Payments	\$ 42,224.42	\$ 12,597.69
New Collection Containers	\$ 10,960.00	\$ -
Travel	\$ 81,152.16	\$ 10,655.88
Legal	\$ 21,228.28	\$ 1,252.77
Direct Expense for Marketing & Outreach	\$ 277,994.50	\$ 16,618.46
<b>Total (expenses)</b>	<b>\$ 1,406,319.49</b>	<b>\$ 117,217.08</b>

- 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.

## NATIONAL 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, California ordered 10.89% of all new container orders.

## LISTING OF 2015 CHANGES & EVALUATION

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

TRC notes, that the mercury auto switch (ELVS) program collections have been trending downward or flat at best in recent years in California. 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 127.6 pounds of mercury and 9,553 thermostats per year** since 2001. In 2015 the program **collected 214.84 pounds of mercury from 18,260 thermostats**, a decrease from the previous year of 19.5% in pounds of mercury and 9.5% in thermostats. Figure 1.1 displays the total number of bins collected, the total number of thermostats, and the total pounds of mercury collected in the state since the beginning of the program.

# LISTING OF 2015 CHANGES & EVALUATION

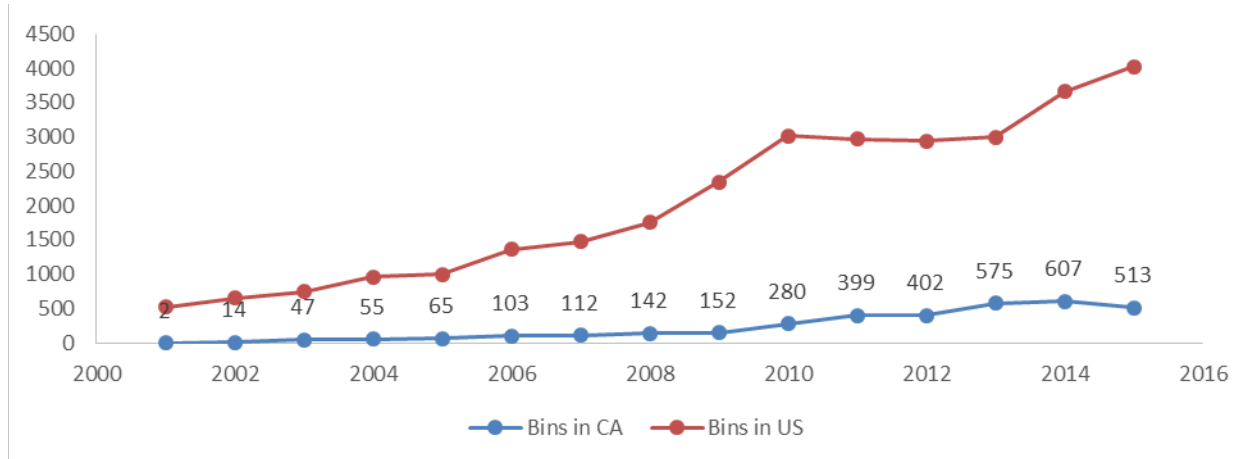
**FIGURE 1.1: PROGRAM PERFORMANCE OVER TIME**

Year	Number Bins	Number Stats	Lbs Mercury
2001	2	182	4.94
2002	14	702	10.47
2003	47	2,395	38.89
2004	55	3,025	36.57
2005	65	3,901	45.86
2006	103	5,110	77.37
2007	112	5,750	83.27
2008	142	7,007	104.82
2009	152	7,441	103.60
2010	280	13,340	185.80
2011	399	18,697	254.84
2012	402	16,353	219.70
2013	575	20,956	265.52
2014	607	20,178	266.89
2015	513	18,260	214.84
<i>Average</i>	<i>231.2</i>	<i>9,553.1</i>	<i>127.6</i>
<i>Total</i>	<i>3,468</i>	<i>143,297</i>	<i>1,913</i>

Figure 1.2 graphically displays the number of bins collected in the state over time as well as the total number of bins collected in the US over the same time period. The figure shows that the number of bins collected annually increased from 2001 to 2014, but fell slightly from 2014 to 2015. The largest increased were seen from 2009 to 2011 and from 2012 to 2013.

## LISTING OF 2015 CHANGES & EVALUATION

FIGURE 1.2. BINS COLLECTED OVER TIME IN STATE AND NATIONALLY



In CA, the **pounds of mercury collected in 2015 decreased by 19.5% over 2014 levels**. Since 2001, the annual pounds of mercury collected in CA has increased by an average of 43%. During the same time period, the pounds of mercury collected in the nation increased by 17% per year. From 2002 through 2010 the pounds of mercury collected in the state increased annually by an average of 64.8%, from 2011 through 2015, the pounds of mercury collected increased annually by an average of only 5.0%. 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.

## LISTING OF 2015 CHANGES & EVALUATION

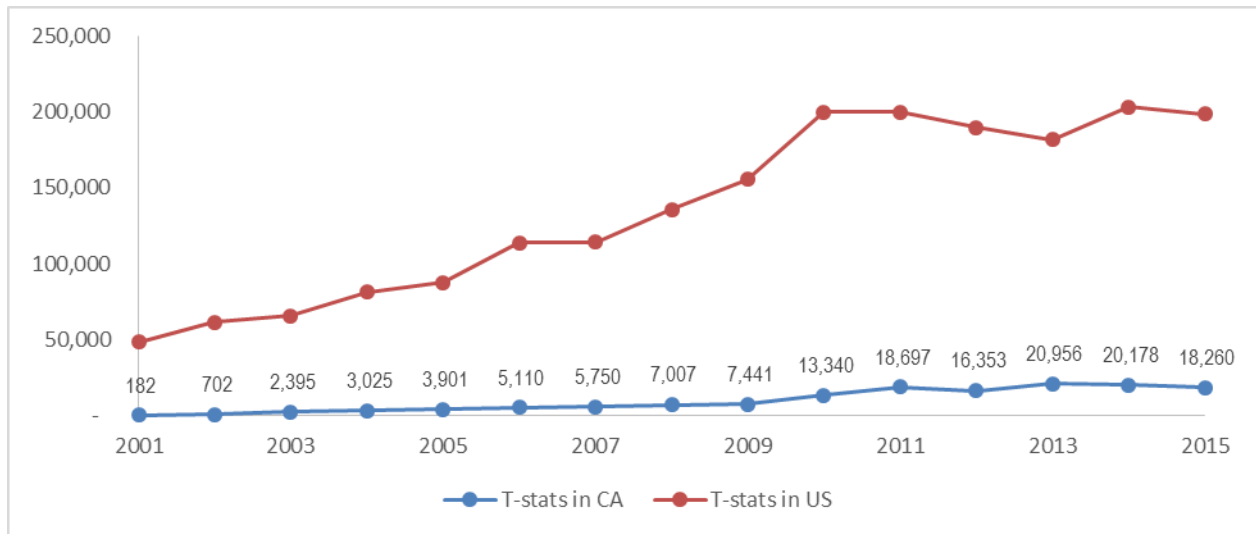
**FIGURE 1.3: POUNDS OF MERCURY COLLECTED IN PROGRAM AND YEAR OVER YEAR CHANGES IN STATE AND US.**

Year	Total Lbs Hg	% Change State	% Change US
2001	4.94	NA	89.4%
2002	10.47	111.9%	13.7%
2003	38.89	271.4%	11.0%
2004	36.57	-6.0%	17.0%
2005	45.86	25.4%	11.1%
2006	77.37	68.7%	32.1%
2007	83.27	7.6%	2.0%
2008	104.82	25.9%	16.3%
2009	103.60	-1.2%	16.3%
2010	185.80	79.3%	26.1%
2011	254.84	37.2%	3.6%
2012	219.70	-13.8%	-5.3%
2013	265.52	20.9%	-4.8%
2014	266.89	0.5%	12.9%
2015	214.84	-19.5%	-1.4%
Average	127.56	43%	16%

The state of CA collected 18,260 thermostats in 2015. This was a **9.5% decrease from the number of thermostats collected in 2014** but a **257% increase in the last decade**. The number of thermostats collected annually in CA has increased by an **average of 55% every year since 2001**. During the same time period, the number of thermostats collected in the US has increased by an annual average rate of 11%. Figure 1.4 displays the total number of thermostats collected in the state and the nation and figure 1.5 shares the underlying data as well as the calculated year over year percent change.

# LISTING OF 2015 CHANGES & EVALUATION

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



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

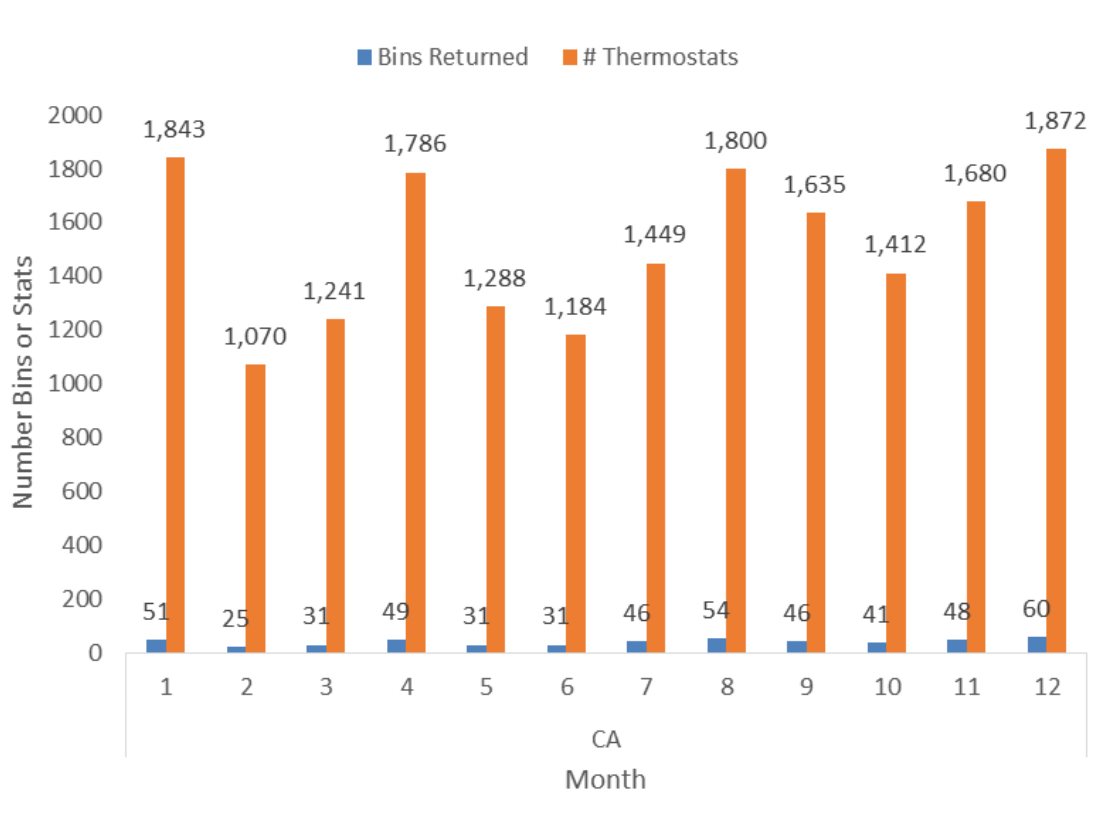
Year	T-stats in CA	T-stats in US	% Change State	% Change US
2001	182	48,350	NA	NA
2002	702	61,422	286%	27%
2003	2,395	65,778	241%	7%
2004	3,025	81,115	26%	23%
2005	3,901	87,754	29%	8%
2006	5,110	113,658	31%	30%
2007	5,750	114,158	13%	0%
2008	7,007	135,646	22%	19%
2009	7,441	155,731	6%	15%
2010	13,340	200,064	79%	28%
2011	18,697	199,918	40%	0%
2012	16,353	189,619	-13%	-5%
2013	20,956	181,600	28%	-4%
2014	20,178	203,346	-4%	12%
2015	18,260	198,603	-10%	-2%
Average	9,553.1	135,784.1	55%	11%



## LISTING OF 2015 CHANGES & EVALUATION

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 **December** (60 bins), **August** (54 bins) and **January** (51 bins). The months with the greatest number of thermostats returned were **December** (1,872 thermostats), **January** (1,843 thermostats), and **August** (1,800 thermostats). Conversely, the months with the fewest number of thermostats returned in 2015 were February, June and March.

**FIGURE 1.6. THERMOSTATS AND BINS COLLECTED PER MONTH 2015**



The highest number of thermostats per bin returned was in **February** (42.8) and **May** (41.5). Figure 1.7 shows the average number of thermostats per returned bin per month for the year.

## LISTING OF 2015 CHANGES & EVALUATION

FIGURE 1.7: AVERAGE THERMOSTATS PER BIN RETURNED PER MONTH

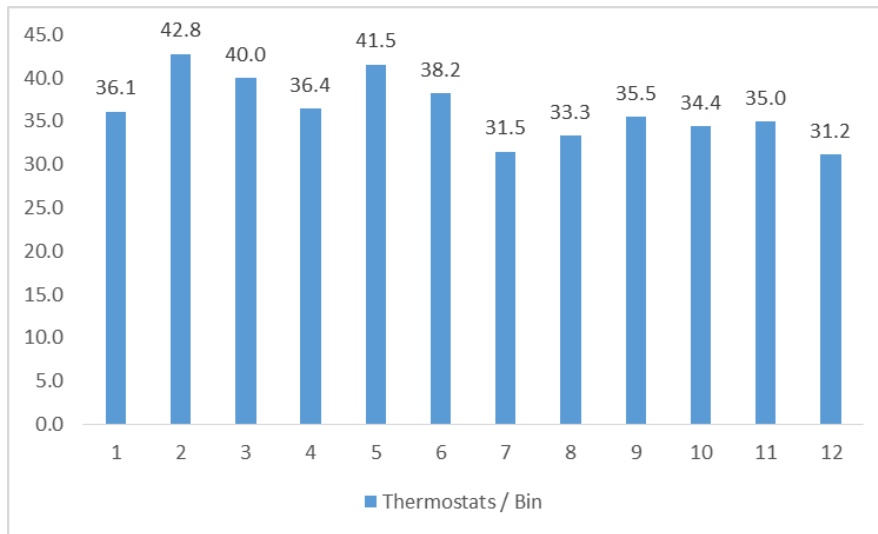


Figure 1.8 displays the average number of thermostats returned per bin in the state and in the US since the beginning of the state program. Nationally, the number of thermostats per bin has been decreasing annually since 2000. In CA the number of thermostats per bin in 2015 (**35.6 thermostats / bin avg.**) was the lowest on record with the exception of 2014, when the average was 33.2 thermostats per bin. The 2015 average was below the 15 year average of 49.8 thermostats per bin.

## LISTING OF 2015 CHANGES & EVALUATION

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

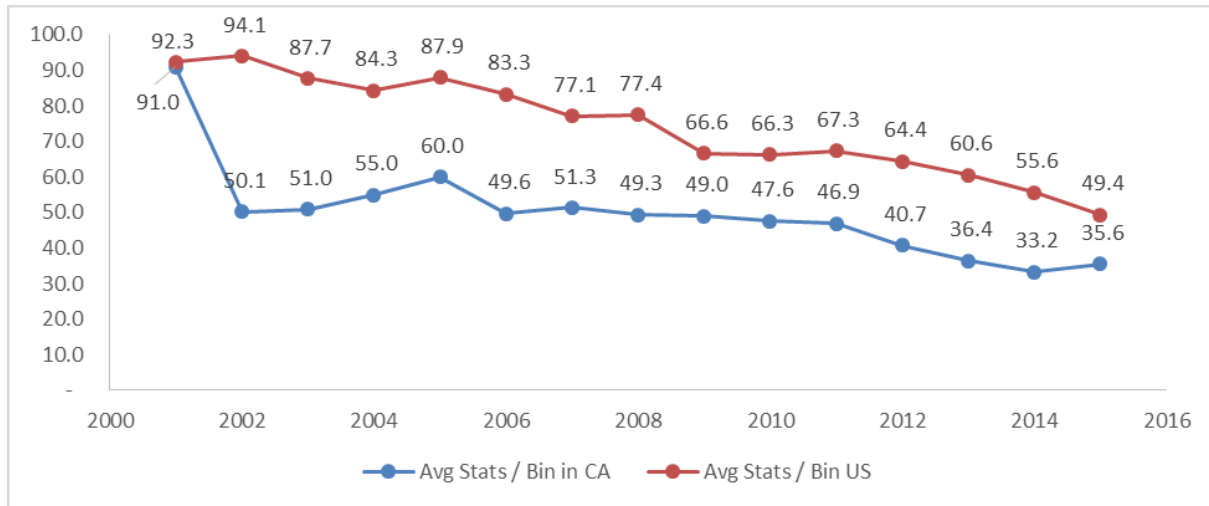
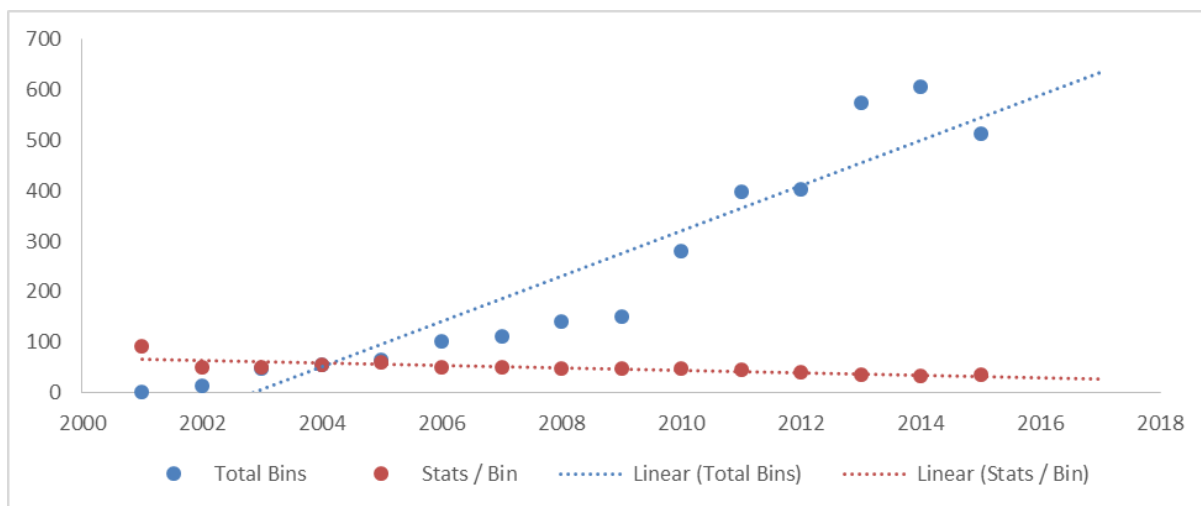


Figure 1.9 plots the total bins returned over time along with the average number of thermostats per bin over the same period to see whether or not there is a relationship between the two. A linear regression found a negative correlation ( $r=-.72$ , slope $=-.046$ ) between the two variables. This suggests that as more bins are returned, the number of thermostats per bin declines.

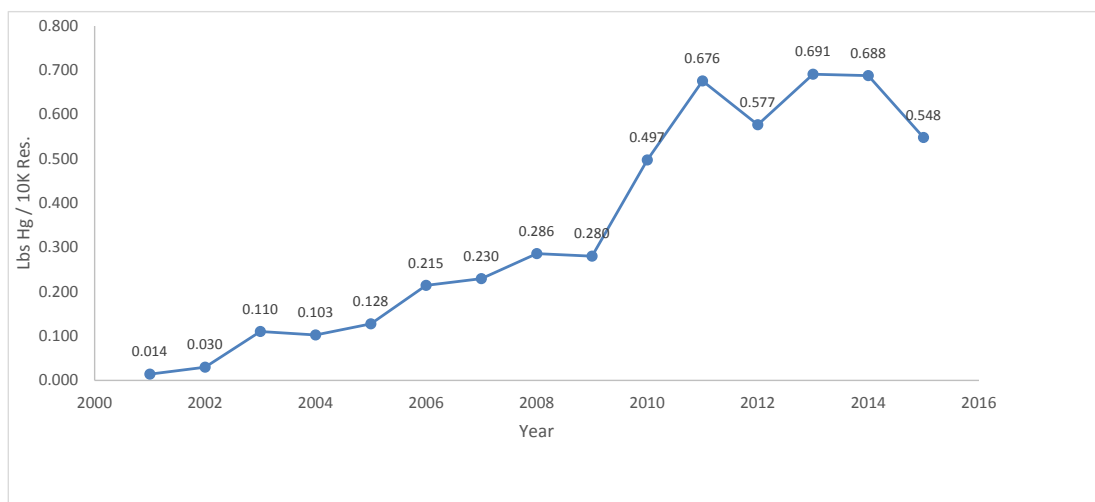
**FIGURE 1.9: TOTAL BINS AND AVERAGE NUMBER OF THERMOSTATS PER BIN OVER TIME**



## LISTING OF 2015 CHANGES & EVALUATION

The **total pounds of mercury collected per 10,000 residents was 0.55 in 2015**. This is lowest figure for pounds of mercury per 10,000 residents since 2010. The record high for the state of CA of 0.69 pounds of mercury collected per 10,000 residents was set in 2013. While the 2015 figure is a 20% decrease below the 0.69 pounds per 10,000 residents collected in 2014, it is two and a half times greater the 0.22 pounds per 10,000 residents collected a decade ago. There was a major increase in pounds per resident collected from 2009 to 2011, and since 2011 the pounds collected per 10,000 residents has remained above .50. 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**

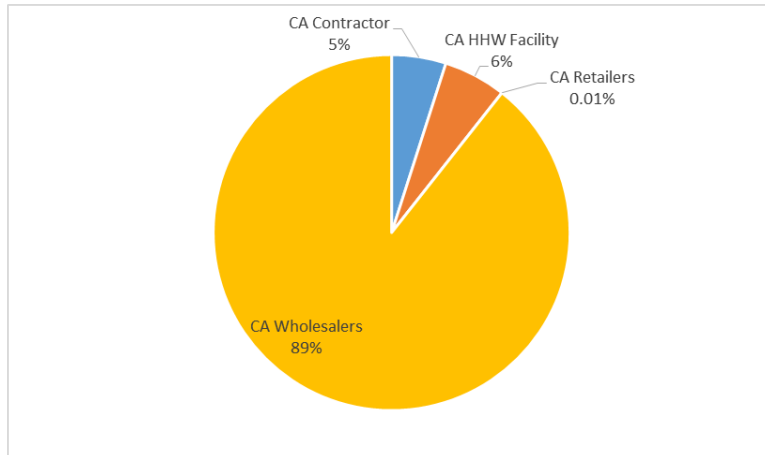


## CHANNEL PARTNER ANALYSIS

This section of the report examines the partner locations in more detail. The majority of thermostats collected in state were through **wholesalers (89%)** with the remaining thermostats collected by **household hazardous waste facilities (6%)**, **contractors (5%)** and **retailers (0.01%)**. Figure 2.1 shows the distribution of thermostats collected by location type in 2015.

## LISTING OF 2015 CHANGES & EVALUATION

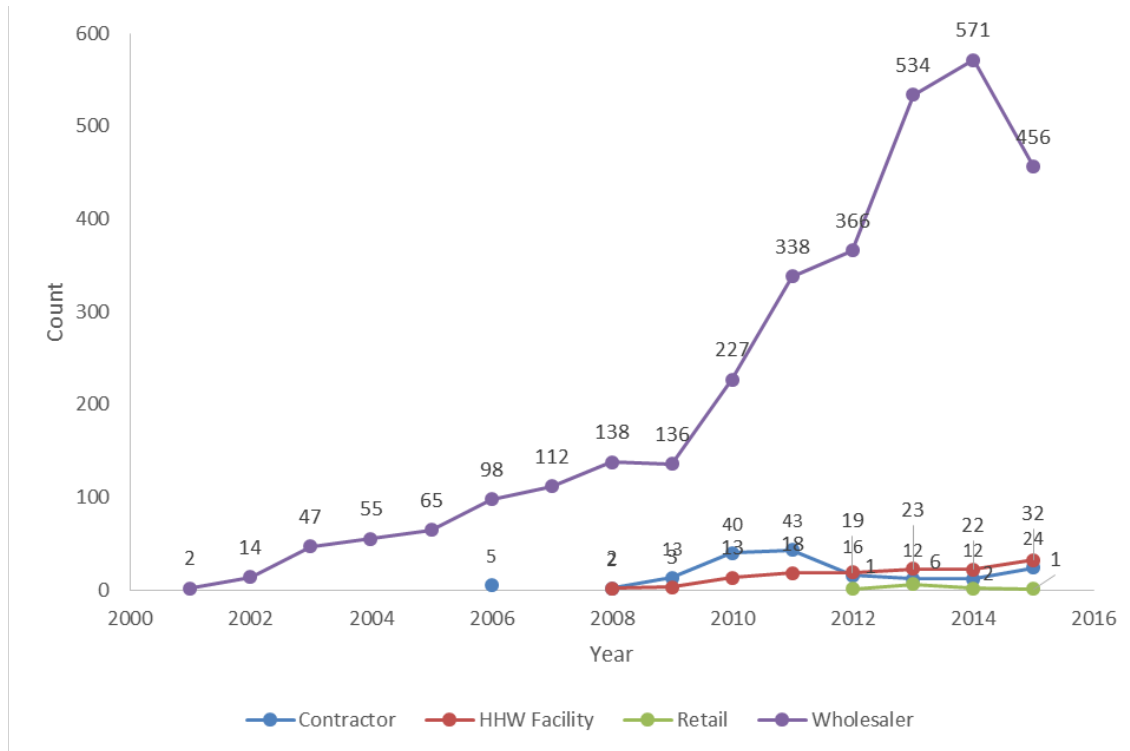
**FIGURE 2.1: THERMOSTATS COLLECTED BY LOCATION TYPE IN 2015**



The number of bins returned by wholesalers decreased from 571 bins in 2014 to 456 bins from wholesalers in 2015, yet wholesalers remain by far the most common returner of bins in the state. The number returned by household hazardous waste facilities increased from 22 bins in 2014 to 32 bins in 2015. At the same time, the number of bins returned by contractors increased from 12 to 24 from 2014 to 2015. Figure 2.2 displays the change in the number of bins returned by thermostat collection type over time in the state.

## LISTING OF 2015 CHANGES & EVALUATION

**FIGURE 2.2: THERMOSTAT BIN RETURNS BY LOCATIONS OVER TIME**



In 2015, **61.7% of the locations** that had a bin in the state of CA sent back at least one bin for recycling. The distribution is displayed in Figure 2.3.

## LISTING OF 2015 CHANGES & EVALUATION

**FIGURE 2.3: PERCENTAGE OF STORES RETURNING A BIN IN 2015**

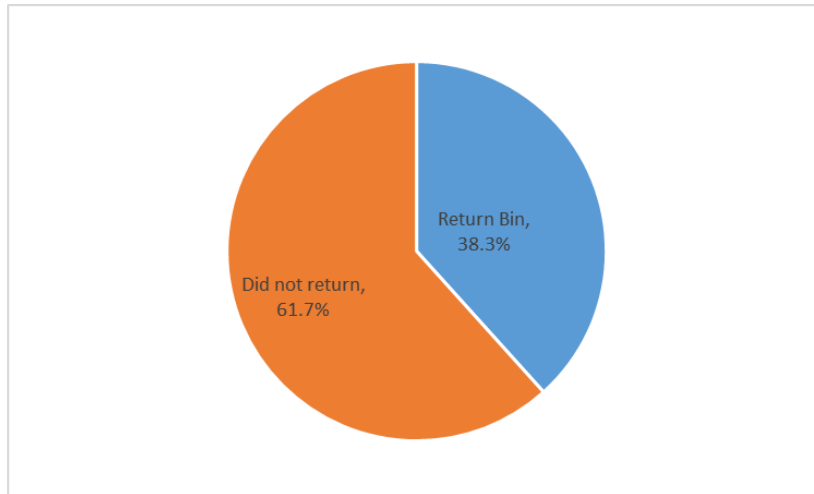
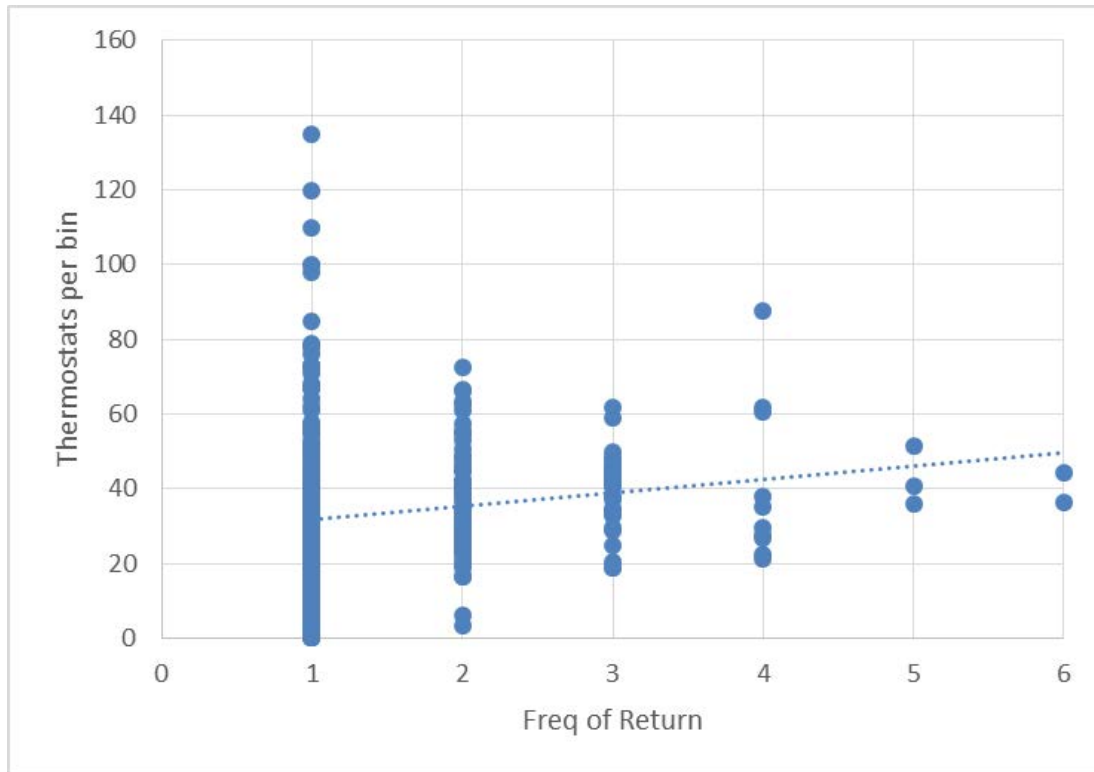


Figure 2.4 is a scatter plot comparing the frequency of bin returns per location and the number of thermostats per bin. The analysis sought to determine whether there was any correlation between the frequency of return and the number of thermostats per bin. While there was only a weak statistical correlation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



## LISTING OF 2015 CHANGES & EVALUATION

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



An analysis of the top performing counties in terms of total bin returns and total thermostats returned in 2015 was conducted. The county with the most bins returned in 2015 was **Los Angeles (152 bins)**, followed by **San Diego (51 bins)** and **Orange (34 bins)**. The counties with the most thermostats returned in 2015 were also **Los Angeles (5,625)**, **San Diego (1,866 thermostats)** and **Orange (1,770 thermostats)**. Figure 2.5 displays the total bins and thermostats returned, by county, in 2015.

# LISTING OF 2015 CHANGES & EVALUATION

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

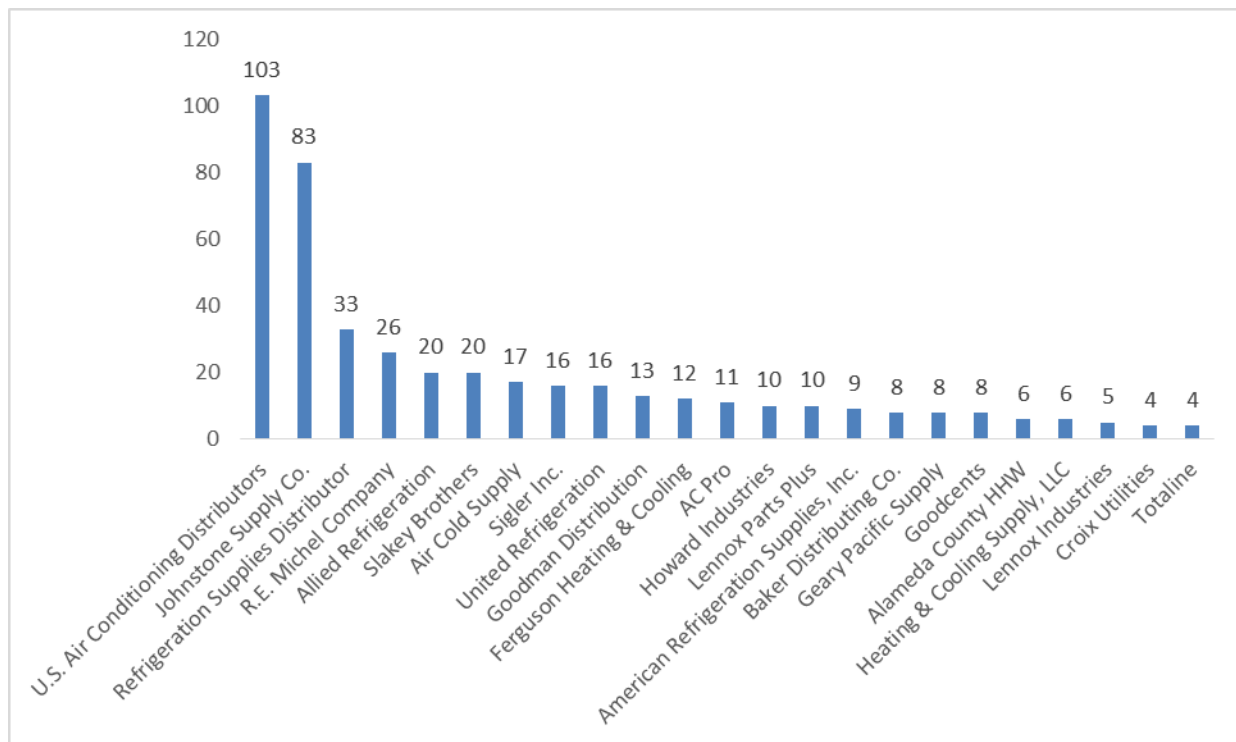
County	Total Bins	Total T-stats
Los Angeles County	152	5,625
San Diego County	51	1,866
Orange County	43	1,770
San Bernardino County	37	1,297
Riverside County	35	1,260
Sacramento County	31	860
Alameda County	22	577
San Joaquin County	17	551
Ventura County	17	655
Santa Clara County	16	603
Kern County	13	286
San Mateo County	11	257
Fresno County	10	347
Contra Costa County	7	332
Nevada County	7	253
Butte County	5	195
Shasta County	4	84
Solano County	4	125
Stanislaus County	4	276
San Francisco County	3	157
San Luis Obispo County	3	132
Sonoma County	3	118
Marin County	2	118
Monterey County	2	73
Santa Barbara County	2	75
Yolo County	2	50
El Dorado County	1	6
Imperial County	1	22
Lassen County	1	1
Mendocino County	1	135
Merced County	1	17
Napa County	1	14
Placer County	1	14
Santa Cruz County	1	73
Sutter County	1	16
Tulare County	1	20

**U.S. Air Conditioning Distributors (103 bins)** returned the highest number of bins in the state in 2015, followed by **Johnstone Supply Co. (83 bins)** and **Refrigeration Supplies Distributor**

## LISTING OF 2015 CHANGES & EVALUATION

**(33 bins).** In addition to the top performers included in the figure, 48 additional program partners returned three or fewer bins each. Figure 2.6 displays the top performing partners in terms of total bins returned in 2015.

**FIGURE 2.6. TOP PERFORMING CHANNEL PARTNERS IN STATE**



## LISTING OF 2015 CHANGES & EVALUATION

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
U.S. Air Conditioning Distributors	103	4,747	46.1
Johnstone Supply Co.	83	3,495	42.1
Refrigeration Supplies Distributor	33	1,128	34.2
R.E. Michel Company	26	781	30.0
Allied Refrigeration	20	785	39.3
Slakey Brothers	20	505	25.3
Air Cold Supply	17	614	36.1
Sigler Inc.	16	374	23.4
United Refrigeration	16	432	27.0
Goodman Distribution	13	249	19.2
Ferguson Heating & Cooling	12	373	31.1
AC Pro	11	381	34.6
Howard Industries	10	213	21.3
Lennox Parts Plus	10	305	30.5
American Refrigeration Supplies, Inc.	9	275	30.6
Baker Distributing Co.	8	313	39.1
Geary Pacific Supply	8	343	42.9
Goodcents	8	379	47.4
Alameda County HHW	6	179	29.8
Heating & Cooling Supply, LLC	6	197	32.8
Lennox Industries	5	110	22.0
Croix Utilities	4	169	42.3
Totaline	4	115	28.8

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 **66 site visits** were conducted in CA and **87 ‘Miss You’ calls** were placed. Figure 2.8 displays the relationship between

## LISTING OF 2015 CHANGES & EVALUATION

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 calls with the number of thermostats returned (in the figure the number of bins seems to go up at the same time as the number of visits), there was not a statistically significant relationship between the two variables.

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

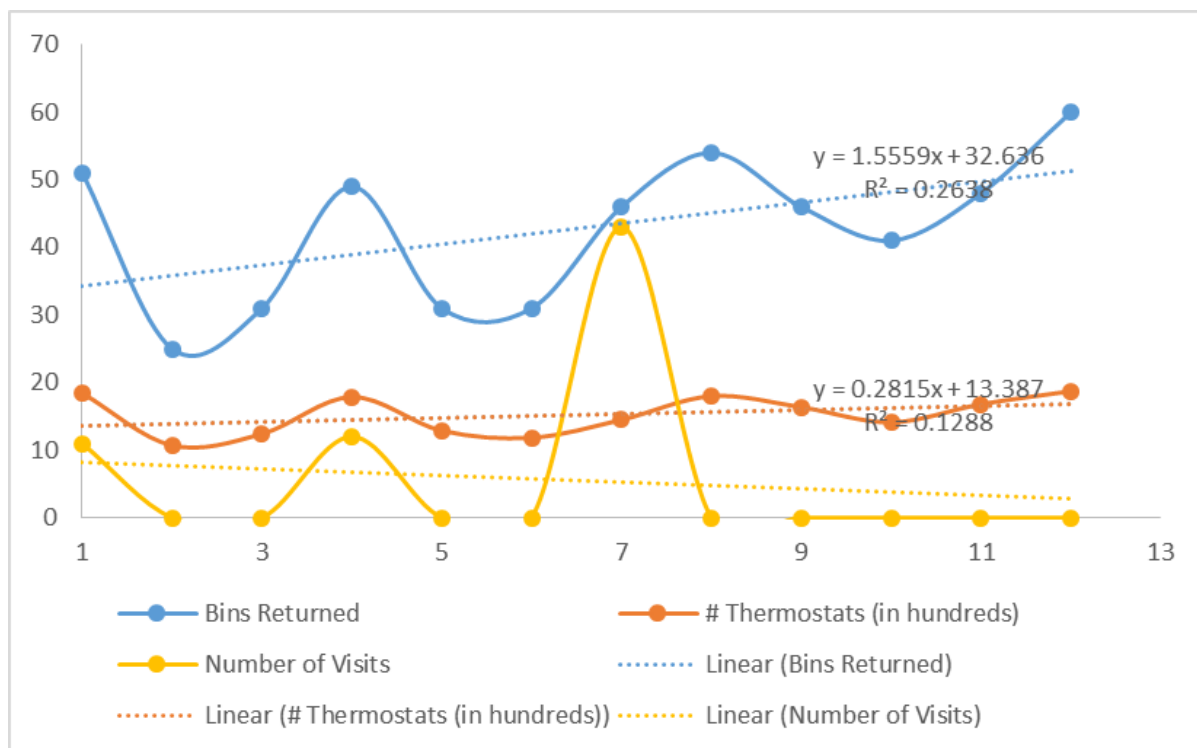
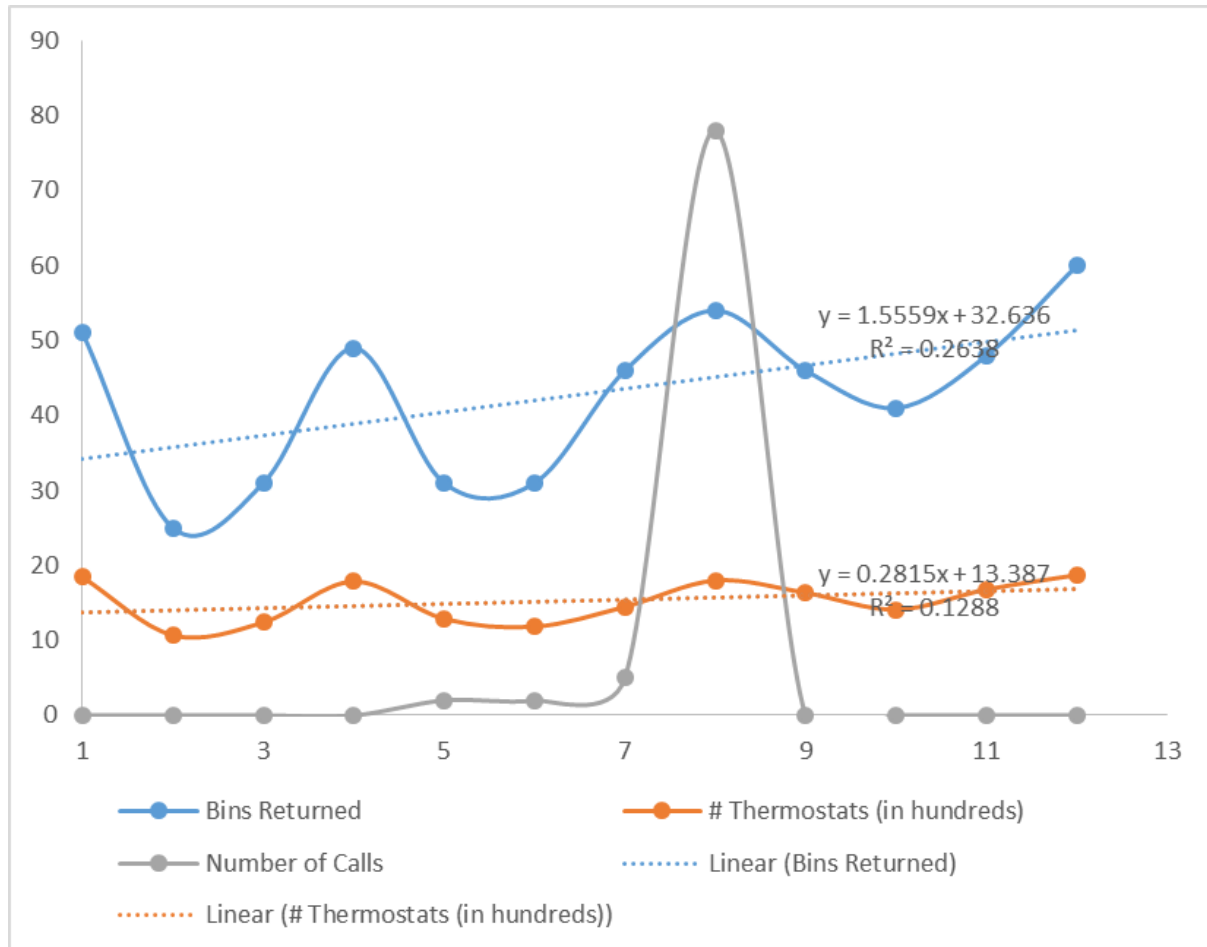


Figure 2.9 displays the relationship between the number of calls per month, the bin returns per month, and the number of thermostats (by 100's) returned per month. Once again there was not a statistically significant relationship between the two variables.

## LISTING OF 2015 CHANGES & EVALUATION

**FIGURE 2.9: RELATIONSHIP BETWEEN ‘MISS YOU’ CALLS AND BINS AND THERMOSTATS RETURNED PER MONTH**



### COMPARISONS TO NATIONAL AND OTHER STATE'S DATA

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

## LISTING OF 2015 CHANGES & EVALUATION

impact on returns. Overall, the average number of bin returned per location per year was higher in CA than the US average and the annual averages are shown in figure 3.1.

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

	2012	2013	2014	2015
US Total	1.4	1.4	1.6	1.8
CA Average	2.7	3.8	4.0	3.4

Figure 3.2 displays the top 10 performing locations in CA 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. US Air Conditioning Distributors, Johnstone Supply, and Refrigeration Supplies Distributor have consistently been the top 3 performers in the state since 2012. United Refrigeration, Johnstone Supply Co., R.E. Michel Company, and Ferguson are top performers on both the state and the national lists.



# LISTING OF 2015 CHANGES & EVALUATION

**FIGURE 3.2: TOP 10 PARTNER LOCATIONS IN CA 2012-2015**

Location	2012 Bins	Location	2014 Bins
US Air Conditioning Distributors, Inc.	65	US Air Conditioning Distributors, Inc.	114
Refrigeration Supplies Distributor	62	Johnstone Supply	95
Johnstone Supply	37	Refrigeration Supplies Distributor	48
Slakey Brothers	23	Ferguson Enterprises	35
United Refrigeration	22	United Refrigeration	32
Goodman Distribution Inc.	20	Goodman Distribution Inc.	32
Allied Refrigeration	18	Slakey Brothers	29
Ferguson Enterprises	17	Allied Refrigeration	27
Sigler Wholesale Distributors	16	R.E. Michel Company	19
Heating & Cooling LLC	14	Baker Distributing Company	17
Location	2013 Bins	Sigler Wholesale Distributors	16
US Air Conditioning Distributors, Inc.	99	Location	2015 Bins
Johnstone Supply	89	U.S. Air Conditioning Distributors	103
Refrigeration Supplies Distributor	60	Johnstone Supply Co.	83
Ferguson Enterprises	33	Refrigeration Supplies Distributor	33
United Refrigeration	27	Ferguson Enterprises	29
Goodman Distribution Inc.	27	R.E. Michel Company	26
Slakey Brothers	23	Allied Refrigeration	20
Sigler Wholesale Distributors	22	Slakey Brothers	20
Allied Refrigeration	20	Sigler Inc.	16
Heating & Cooling LLC	18	United Refrigeration	16
		Goodman Distribution	13
		AC Pro	11
		Howard Industries	10
		Lennox Parts Plus	10

## LISTING OF 2015 CHANGES & EVALUATION

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

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

Figure 3.4 displays the total percentage of locations per state and for the entire US with a bin that participated in the program in 2015 (participation is defined as sending back at least one bin). In 2015, **38.3% of the locations in CA 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%).

## LISTING OF 2015 CHANGES & EVALUATION

**FIGURE 3.4: PERCENTAGE OF LOCATIONS RETURNING A BIN IN 2015**

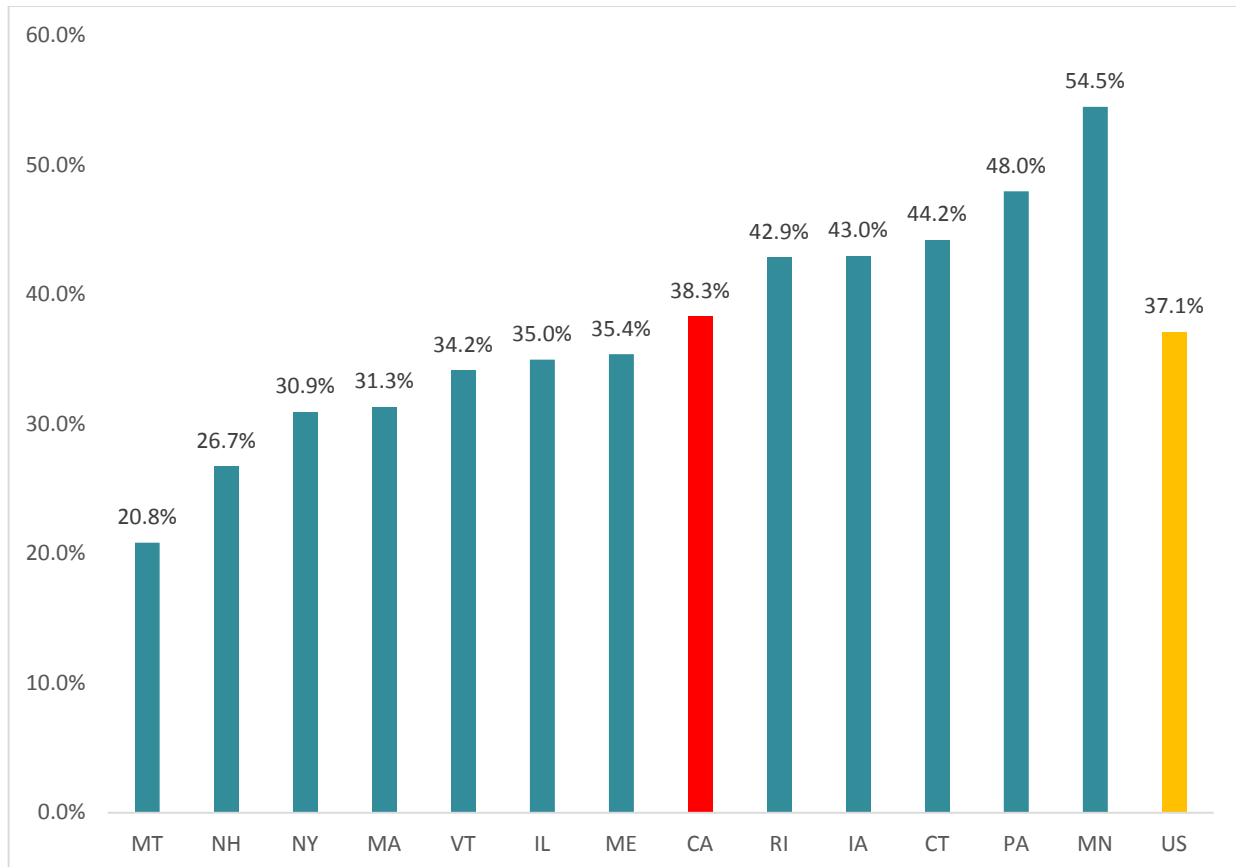


Figure 3.5 compares the state and national rates for a number of analytics in 2015. These include: the total thermostats and bins collected, the number of collection locations in each state per 10,000 residents, the number of thermostats collected by total locations and per participating location, the 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. The figure indicates that CA is performing well in terms of thermostats collected per location and thermostats per location returning a bin.

# LISTING OF 2015 CHANGES & EVALUATION

**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

# PROGRAM MODIFICATIONS

## **2016 DTSC SETTLEMENT FOR SUMMARIES OF VIOLATIONS (2013 & 2014)**

Thermostat Recycling Corporation (TRC) continues to work diligently with member companies, interested stakeholders, and the State to maximize efforts to collect mercury thermostats in California. TRC's collections in California since 2008 have reduced the amount of remaining mercury thermostats still in use, which is reflected in declining collections. This is consistent with national trends. TRC collects more mercury thermostats in California than in any other state.

The manufacturers did not meet the collection goals set by the DTSC for 2013 and 2014. On February 10th 2016, twenty-five manufacturing members of the TRC entered into a consent order to improve collection methods and test programs to increase awareness and participation.

The consent order consists of three principal components: preparation, submission, and approval of an outreach plan; testing pilot projects and a program modification plan considering both the outreach and pilot projects' conclusions. An assessment will be conducted of both the effectiveness of the strategies and also their scalability/replicability.

TRC designated Steven B. Hellem as the TRC Project Manager for implementation of the consent order requirements. Consultants and experts will be engaged to support the various projects.

TRC and its members look forward to continued collaboration with the DTSC in ongoing efforts to help maximize collection of the remaining mercury thermostats in California.

## **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

## PROGRAM MODIFICATIONS

- 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 Illinois, 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.

### BRANDING CAMPAIGN

In January TRC placed a full page color ad in *ACHR News*, one of the industry's leading HVAC publication with a weekly circulation of more than 33,000 (Exhibit 27). The ad appeared during the week of the AHR Expo, which is one of the more popular issues of the magazine. The ad tied TRC's members and affiliates together around the positive call to action of recycling every mercury

# PROGRAM MODIFICATIONS

thermostat, every time. TRC resized this ad to place a half-page size in the February issue of *HVACR Business Magazine* as well.

## EXHIBIT 27: ACHR NEWS FULL PAGE AD


**AN IMPORTANT MESSAGE TO  
HVAC CONTRACTORS:**

EVERY **MERCURY** EVERY  
**THERMOSTAT** TIME

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

**JOIN US IN SUPPORTING  
MERCURY THERMOSTAT RECYCLING**

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

 **Thermostat Recycling**  
CORPORATION  
an industry-funded non-profit

Additionally in January, TRC launched a new branding campaign, “Recycle every mercury thermostat, every time” (Exhibit 28). 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 tools. HVAC tools are safe when used properly, just like mercury thermostats are safe when recycled and disposed of properly.



## PROGRAM MODIFICATIONS

### EXHIBIT 28: NEW BRANDING CAMPAIGN



The advertisement features a green header with the Thermostat Recycling Corporation logo and the text "Thermostat Recycling CORPORATION". Below this, a green banner contains the question "WOULD YOU LET YOUR KIDS PLAY WITH THESE?". The main image shows two children, a boy and a girl, holding power tools (a drill and a chainsaw) in a playful manner. To the left of the children, text reads: "You may have played with mercury as a kid, but times have changed." Below this, it says "RECYCLE **EVERY** MERCURY THERMOSTAT, **EVERY** TIME." At the bottom left is a green recycling bin icon, 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 implement Facebook, and potentially YouTube, advertising in the spring and fall during the HVAC

## PROGRAM MODIFICATIONS

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:

- 1/2pg spot-color ad in *HVAC Insider Goldenwest* for four months
- 1/8pg two-color ad in *Indoor Comfort News* for six months
- 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 WHOLESALE LOCATIONS WITHOUT TRC BINS



1765 Duke Street | Alexandria, VA 22314 | [thermostat-recycle.org](http://thermostat-recycle.org)

6/30/2015

Hajoca - San Diego  
ATTN: Branch Manager  
7813 Ostrow St  
San Diego, CA 92111

Subject: Compliance with California Mercury Thermostat Recycling Law

Dear Branch Manager,

I am writing you because HVAC Wholesale Distributors in the state of California are required to act as a collection point for waste mercury thermostats. Otherwise they are prohibited from selling any thermostat. Thermostat Recycling Corporation (TRC) has no record of your branch location participating in its program and as such it seems likely your business is not in compliance with California law.

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

Complete the attached form to order a container. If you reply within 15 days, TRC will waive the customary \$25.00 participation fee. For more information, TRC can be found at [www.thermostats-recycle.org](http://www.thermostats-recycle.org) or please call me direct at 571-302-0877.

Looking forward to speaking,

Ryan L. Kiscaden  
*Director of National Accounts*  
Thermostat Recycling Corporation

ENCLOSED:  
CA Assembly Bill No. 2347  
HVACR Wholesale Participation Form

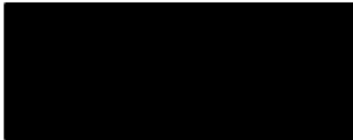
Cc: Richard Klau, President of Hajoca Corporation

## APPENDIX 2: LETTER TO CEO'S



1765 Duke Street | Alexandria, VA 22314 | [thermostat-recycle.org](http://thermostat-recycle.org)

July 1, 2015



Subject: Compliance with California Mercury Thermostat Recycling Law

Dear Mr. Klau:

I am writing you to highlight a recent correspondence Thermostat Recycling Corporation (TRC) sent Hajoca Corporation's branch locations in California. HVAC Wholesale Distributors in the state of California are required to act as a collection point for waste mercury thermostats. Otherwise they are prohibited from selling any thermostat. TRC has no record of your branch location participating in its program and as such it seems likely your business is not in compliance with California law.

TRC is a non-profit organization funded by thermostat manufacturers. It operates the mandatory collection program in California 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 to repeat the process. There are no recurring fees to participate in the program.

The attached participation form is an example order form TRC has sent Hajoca branches. For more information, TRC can be found at [www.thermostats-recycle.org](http://www.thermostats-recycle.org) or please call me direct at 571-447-4312.

Sincerely,

Mark Tibbetts  
Executive Director

ENCLOSED:  
TRC Letter to CA Hajoca Branches  
CA Assembly Bill No. 2347  
HVACR Wholesale Participation Form

## APPENDIX 3: OEM LETTER CLEANOUT



1765 Duke Street | Alexandria, VA 22314 | [thermostat-recycle.org](http://thermostat-recycle.org)

July 17<sup>th</sup>, 2015



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

Dear Mr. Trimbach:

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

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

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

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

Sincere Regards,

Mark Tibbetts  
Executive Director

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

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

## APPENDIX 4: WINSUPPLY LETTER



1765 Duke Street | Alexandria, VA 22314 | [thermostat-recycle.org](http://thermostat-recycle.org)

July 6, 2015

Bakersfield Winnelson Co.  
ATTN: Branch Manager  
320 Sumner Street  
Bakersfield, CA 93305

Subject: Compliance with California Mercury Thermostat Recycling Law

Dear Branch Manager:

I am writing you because HVAC Wholesale Distributors in the state of California are required to act as a collection point for waste mercury thermostats. Otherwise they are prohibited from selling any thermostat. Thermostat Recycling Corporation (TRC) has no record of your branch location participating in its program and as such it seems likely your business is not in compliance with California law.

TRC is a non-profit organization funded by thermostat manufacturers. It operates the mandatory collection program in California 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 to repeat the process. There are no recurring fees to participate in the program.

Complete the attached form to order a container. If you reply within 15 days, TRC will waive the customary \$25.00 participation fee. For more information, TRC can be found at [www.thermostats-recycle.org](http://www.thermostats-recycle.org) or please call me direct at 571-302-0877.

Looking forward to speaking,

Ryan L. Kiscaden  
Director of National Accounts

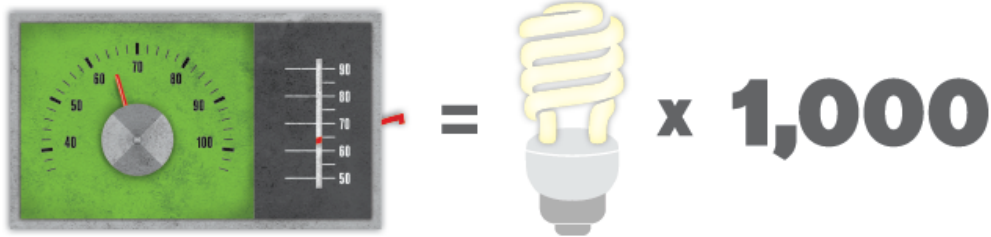
ENCLOSED:  
CA Assembly Bill No. 2347  
HVACR Wholesale Participation Form

Cc: Richard Schwartz, CEO of WinWholesale Inc.



## APPENDIX 5: 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](http://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 6: 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](http://www.thermostat-recycle.org) to learn more about how easy it is to take advantage of the program.

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

[Sign Up](#)



## APPENDIX 7: CONTRACTING BUSINESS JUN EBLAST



[Thermostat-Recycle.org](http://Thermostat-Recycle.org)  
[TRC@Thermostat-Recycle.org](mailto: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](http://www.thermostat-recycle.org) to learn more about how easy it is to take advantage of the program.

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

[Sign Up](#)

# APPENDIX 8: HVAC TECHNICIAN LOYALTY PROGRAM BROCHURE

## What is the Recycle, Scratch, Earn Program?

A loyalty program that offers registered participants the opportunity to earn points for qualifying activities. Participants may redeem points for a wide variety of consumer goods and services, such as merchandise, entertainment or travel from the online catalog of rewards. From the latest in Apple products, to concert tickets, to airfare and hotel accommodations, this program offers outstanding quality and robust selection options.

## How does the Recycle, Scratch, Earn rewards program work?

Return one+ waste mercury thermostats to a participating HVAC wholesale collection location to receive a scratch card award for each mercury thermostat returned. Each scratch card will be worth 600 points. Participants can redeem points upon accumulating a minimum of 4,800 points. Points may be redeemed for items in the online catalog at [www.recycle-scratch-earn.com](http://www.recycle-scratch-earn.com).

## What are the Recycle, Scratch, Earn operating dates?

Thermostat Recycling Corporation reserves the right to terminate this program at any time. Award points may be redeemed 90 days after the termination of the program.



## HVAC Technician Loyalty Program

**\* RECYCLE A MERCURY \*  
THERMOSTAT & EARN POINTS  
TO REDEEM FOR BRAND-NAME  
MERCHANDISE!**

[www.recycle-scratch-earn.com](http://www.recycle-scratch-earn.com)



## Loyalty Program FAQs

### Who is eligible for the Recycle, Scratch, Earn program?

The program is only available to legal residents of California who are 18+ years of age. Only one account is allowed per participant and participants cannot share accounts.

### Why is my personal information requested when I enroll in the program?

To enroll you must provide personal information that will only be used in relation to awarding you points and fulfilling your redeemed points for merchandise. It is your responsibility to maintain the accuracy of your contact information through the "My Account" page of the website.

### How do I redeem my Recycle, Scratch, Earn Points?

Visit [www.recycle-scratch-earn.com](http://www.recycle-scratch-earn.com) to register an account and login. After you've logged in, click the "Shopping" tab in the top menu to browse or search the online catalog, or click "My Account" to update your profile, view available points, etc.

When you have selected the item you wish to redeem points for, you may checkout right away or add more items to your online award shopping cart. Finally, update or confirm the shipping address.

### Do I have to calculate shipping and tax?

The shipping and tax for each item is included in the points and is based upon your personal delivery location information you provide. You will be able to add items to your Wish List to know exactly what it will take to achieve your goal!

### How long will it take for my rewards to arrive after redeeming points?

Order delivery time varies; most products are delivered within 7-10 business days. While some items may arrive in as little as 3-5 business days, this is not typical and will depend upon the vendor of the product and their shipping methods.

**Important! Do NOT use P.O. Boxes for product delivery.** Many carriers will not deliver to a P.O. Box and will likely result in product return and delay of your shipment.

### How do I track the shipping status of my merchandise?

Log in to your personal account and click "My Account" to view details on your order status.

### What if I need to return a defective product?

Contact Award Headquarters via the "Contact Us" form on the rewards website for return instructions.

### Can I have my rewards shipped to an address that is not in my profile?

Yes, just update the shipping address when completing your order to have awards delivered to a new address.

### Who do I contact if there is a problem with my reward merchandise?

Contact Award Headquarters via the "Contact Us" form on the rewards website.

### I never received my reward product - what should I do?

If the product is flagged "Shipped" on your "My Account" page, contact Award Headquarters via the "Contact Us" form on the rewards website for shipping research.

### Where do I obtain warranty information?

Warranty registration forms are typically included in the product packaging.

### Can I cancel an order after it has been placed?

No, all redemptions are final. Please contact Award Headquarters via the "Contact Us" form on the rewards website for information on returning a defective item.

Rewards Website:

[www.recycle-scratch-earn.com](http://www.recycle-scratch-earn.com)

## APPENDIX 9: COLLECTION LOCATION PHONE CALLS

(SORTED BY DATE, THEN ALPHABETICALLY BY CITY)

Date	Collection Location	City
5/8/2015	Goodman Distribution, Inc.-Stockton	Stockton
5/12/2015	Geary Pacific Supply-Redding	Redding
6/8/2015	Mountain Air	Pine Grove
6/10/2015	Dial One -- Service Experts	Rocklin
7/27/2015	Corix Utilities	San Diego
7/28/2015	Wholesale Outlet	Stockton
7/28/2015	Controlco - Headquarters	Oakland
7/28/2015	Johnson Controls-Roseville	Roseville
7/28/2015	Heating & Cooling LLC	Bakersfield
8/4/2015	County of Sacramento	North Highlands
8/11/2015	Johnson Controls-Whittier	Whittier
8/11/2015	J W Wood Co., Inc/All Air Supply	Chico
8/11/2015	Trane	Riverside
8/11/2015	Trane-Long Beach	Long Beach
8/11/2015	Slakey Brothers-Elk Grove	Elk Grove
8/11/2015	Sigler-Sacramento	Sacramento
8/11/2015	Geary Pacific Supply-Redding	Redding
8/11/2015	RSD-Lake Forest	Lake Forest
8/11/2015	Johnstone Supply #329	Visalia
8/12/2015	Slakey Brothers/Redwood City	Redwood City
8/12/2015	Mcclelland Air Conditioning	Chico
8/12/2015	Southern California Air Con Appl	El Cajon
8/12/2015	Controlco-San Francisco	San Francisco
8/12/2015	American Refrigeration Supplies, Inc.-San Diego	San Diego
8/12/2015	Alameda County Household Hazardous Waste Program	Oakland
8/12/2015	American Refrigeration Supplies, Inc.-Oakland	Oakland
8/12/2015	Sigler Wholesale Distributors-San Diego	San Diego
8/12/2015	Johnstone Supply - Lancaster	Lancaster
8/12/2015	RSD	Redding
8/12/2015	RSD-Modesto	Modesto
8/13/2015	Air Cold Supply, a Ferguson Enterprise-Lancaster	Lancaster
8/13/2015	Air Cold Supply-San Jose	San Jose
8/13/2015	American Refrigeration Supplies, Inc.-South San Francisco	South San Francisco
8/13/2015	Wholesale Outlet, Inc	Sacramento
8/13/2015	Slakey Brothers-Salinas	Salinas
8/13/2015	Johnstone Supply-Merced	Merced
8/13/2015	RSD-South San Francisco	South San Francisco
8/13/2015	Slakey Brothers-Redding	Redding
8/21/2015	Sigler-San Marcus	San Marcus
8/21/2015	Allied Refrigeration Inc.-San Jose	San Jose

## APPENDIX 9: COLLECTION LOCATION PHONE CALLS

(SORTED BY DATE, THEN ALPHABETICALLY BY CITY)

8/21/2015	Rahac Htg & Cooling Inc.	Glendale
8/21/2015	Heating & Cooling Supply, LLC - San Diego	San Diego
8/25/2015	Controlco	Fresno
8/25/2015	City Of Fremont Phhwcf	Fremont
8/25/2015	County of Sacramento	North Highlands
8/25/2015	Gow Supply Company	San Francisco
8/25/2015	RSD-National City	National City
8/25/2015	Goodman Distribution, Inc.-San Jose	San Jose
8/25/2015	Goodman Distribution, Inc.-Victorville	Victorville
8/25/2015	Baker Distributing Company-Chico	Chico
8/25/2015	Goodman Distribution, Inc.-Los Angeles	Los Angeles
8/25/2015	Air Cold Supply, Inc., a Ferguson Enterprise-San Rafael	San Rafael
8/25/2015	RSD-Van Nuys	Van Nuys
8/25/2015	AC PRO-Fontana	Fontana
8/25/2015	RSD-Pomona	Pomona
8/25/2015	RSD-Roseville	Roseville
8/25/2015	Heating & Cooling Llc #813	Escondido
8/25/2015	Slakey Brothers-Fairfield	Fairfield
8/25/2015	J.W. Wood Co., Inc.	Redding
8/25/2015	Global Hvac Distributors, Inc.	Manteca
8/25/2015	Baker Distributing Co.-San Jose	San Jose
8/25/2015	T & A Supply, Inc.	San Jose
8/25/2015	Pittsburg Ace Hardware	Pittsburg
8/26/2015	Coast Appliance Parts	Bakersfield
8/26/2015	Lennox Parts Plus	San Leandro
8/27/2015	Northaire Supply Co Inc	San Jose
8/27/2015	United Refrigeration-National City	National City
8/27/2015	Slakey Brothers	Hayward
8/27/2015	Lennox Industries Inc.-Eastvale	Eastvale
8/27/2015	Trane Parts Center-Rocklin	Rocklin
8/27/2015	Baker Distributing Co.-Oakland	Oakland
8/27/2015	Pacific Hvac Depot	San Leandro
8/27/2015	Orchard Supply Hardware-Pismo Beach	Pismo Beach
8/27/2015	RSD-Salinas	Salinas
8/27/2015	American Refrigeration Supplies, Inc.-San Bernardino	San Bernardino
8/27/2015	Johnson Controls	Cypress
8/27/2015	Aaa Air & Heating	Fresno
8/27/2015	Trane-Fresno	Fresno
8/27/2015	Sigler Wholesale Distributors-Concord	Concord
8/27/2015	Johnstone Supply Co-El Cajon	El Cajon
8/27/2015	Johnson Controls	Bakersfield
8/27/2015	Cfm Equipment Distributors, Inc.	Fresno
8/27/2015	R. E. Michel Company - Long Beach	Long Beach

## APPENDIX 9: COLLECTION LOCATION PHONE CALLS

(SORTED BY DATE, THEN ALPHABETICALLY BY CITY)

8/27/2015	Genie Air Conditioning & Heating Inc.	Van Nuys
8/27/2015	AC Pro	El Cajon
8/28/2015	Coast Appliance Parts-Van Nuys	Van Nuys
8/28/2015	A-1 Guaranteed	Vallejo

## APPENDIX 10: COLLECTION LOCATION VISITS

(SORTED BY DATE, THEN ALPHABETICALLY BY CITY)

Date of visit	Collection Location	City	Zip Code	County
1/20/2015	R. E. Michel Company - Long Beach	Long Beach	90805	Los Angeles County
1/20/2015	Us Air Conditioning Distributors-Signal Hill	Signal Hill	90755	Los Angeles County
1/21/2015	Air Cold Supply-Upland	Upland	91786	San Bernardino County
1/21/2015	Baker Distributing Company-Upland	Upland	91786	San Bernardino County
1/21/2015	Johnstone Supply-Upland	Upland	91786	San Bernardino County
1/21/2015	Lennox Industries Inc.-Chino	Chino	91710	Los Angeles County
1/21/2015	R.E Michel Inc, Company	Ontario	91764	San Bernardino County
1/21/2015	Totaline Of California-Ontario	Ontario	91761	San Bernardino County
1/21/2015	US Air Conditioning Distributors	Lake Forest	92630	San Bernardino County
1/22/2015	USACD - Ontario	Ontario	91764	San Bernardino County
1/29/2015	Totaline Of California-Ontario	Ontario	91761	San Bernardino County
4/6/2015	Allied Refrigeration-Culver City	Culver City	90232	Los Angeles County
4/6/2015	Howard Industries	Culver City	90232	Los Angeles County
4/6/2015	US Air Conditioning Distributors	Culver City	90232	Pueblo County
4/7/2015	American Refrigeration Supplies, Inc.- Glendale	Glendale	91201	Los Angeles County
4/7/2015	Baker Distributing Company-Pacoima	Pacoima	91331	Ventura County
4/7/2015	Dancool Hvac Supplying	N Hollywood	91605	Los Angeles County
4/7/2015	Goodman Distribution, Inc.-San Fernando	San Fernando	91340	Los Angeles County
4/7/2015	Johnstone Supply-Sun Valley	Sun Valley	91352	Los Angeles County
4/7/2015	U.S. Air Conditioning Distributors	Burbank	91506	Ventura County
4/9/2015	Ferguson Heating and Cooling	Newbury Park	91320	Ventura County
4/9/2015	Johnstone Supply - Thousand Oaks	Thousand Oaks	91358	Los Angeles County
4/9/2015	Us Airconditioning Distributors	Newbury Park	91320	Los Angeles County
7/6/2015	Goodcents	Manteca	95336	San Joaquin County
7/6/2015	Slakey Brothers - Modesto	Modesto	95358	Stanislaus County
7/6/2015	U.S. Air Conditioning Distributors-Modesto	Modesto	95351	San Joaquin County
7/6/2015	United Refrigeration-Modesto	Modesto	95351	Stanislaus County



## APPENDIX 10: COLLECTION LOCATION VISITS

(SORTED BY DATE, THEN ALPHABETICALLY BY CITY)

7/7/2015	Goodman Distribution, Inc.-Stockton	Stockton	95205	Sacramento County
7/7/2015	Johnson Controls-Folsom	Folsom	95630	Stanislaus County
7/7/2015	Johnstone Supply	Stockton	95205	San Joaquin County
7/7/2015	Lennox Parts Plus-Stockton	Stockton	95205	San Joaquin County
7/7/2015	RSD-Stockton	Stockton	95205	San Joaquin County
7/7/2015	Slakey Brothers-Elk Grove	Elk Grove	95758	Sacramento County
7/7/2015	Slakey Brothers-Stockton	Stockton	95208	San Joaquin County
7/7/2015	Solar City - Rancho Cordova	Rancho Cordova	95742	Sacramento County
7/7/2015	Thrifty Supply-Sacramento	Sacramento	95826	Sacramento County
7/7/2015	Us Air Conditioning Distributors-Stockton	Stockton	95205	San Joaquin County
7/8/2015	Air Cold Supply-Chico	Chico	95928	Butte County
7/8/2015	Baker Distributing Company-Chico	Chico	95928	Butte County
7/8/2015	Johnstone Supply-Redding	Redding	96002	Sutter County
7/8/2015	RSD	Redding	96002	Shasta County
7/8/2015	Slakey Brothers-Chico	Chico	95927	Sacramento County
7/8/2015	Slakey Brothers-Redding	Redding	96002	Shasta County
7/8/2015	Slakey Brothers-Yuba City	Yuba City	95992	Butte County
7/8/2015	US Air Conditioning Distributors	Redding	96003	Shasta County
7/9/2015	Ferguson Heating & Cooling-Sacramento	Sacramento	95834	Sacramento County
7/9/2015	Geary Pacific Supply-North Highlands	North Highlands	95660	Sacramento County
7/9/2015	Lennox Industries Inc.- Sacramento	Sacramento	95814	Sacramento County
7/9/2015	Slakey Brothers-North Highlands	North Highlands	95660	Sacramento County
7/9/2015	Trane Supply - North Highlands	North Highlands	95660	Sacramento County
7/9/2015	United Refrigeration # P1	North Highlands	95660	Sacramento County

## APPENDIX 10: COLLECTION LOCATION VISITS

(SORTED BY DATE, THEN ALPHABETICALLY BY CITY)

7/9/2015	Us Air Conditioning Distributors-North Highlands	North Highlands	95660	Placer County
7/29/2015	Air Cold Supply, Inc., a Ferguson Enterprise-Sacramento	Sacramento	95838	Sacramento County
7/29/2015	American Refrigeration Supplies - Sacramento	Sacramento	94203	Orange County
7/29/2015	Cfm Equipment Distributors, Inc.-Sacramento	Sacramento	95838	Sacramento County
7/29/2015	City Of Sacramento Phhwcf	Sacramento	95826	Sacramento County
7/29/2015	County of Sacramento	North Highlands	95650	Sacramento County
7/29/2015	Gianelli's Parts and Appliances	Rancho Cordova	95670	Sacramento County
7/29/2015	Goodman Distribution, Inc.-Sacramento	Sacramento	95811	Sacramento County
7/29/2015	Goodman Distribution, Inc.-Sacramento 2	Sacramento	95827	Sacramento County
7/29/2015	RSD - Sacramento	Sacramento	95827	Sacramento County
7/29/2015	RSD-Sacramento	Sacramento	95815	Sacramento County
7/29/2015	Sigler-Sacramento	Sacramento	95826	Sacramento County
7/29/2015	Siglers-Sacramento	Sacramento	95826	Sacramento County
7/29/2015	Standard Supply Usa	Sacramento	95811	Sacramento County
7/29/2015	Wholesale Outlet, Inc	Sacramento	95838	Sacramento County



# APPENDIX 11: 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 11: 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 thermostats<sup>1</sup>.

#### Regulatory History

##### **U.S. Federal Rules and Regulations**

The Resource Conservation and Recovery Act (RCRA)<sup>2</sup> 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.

<sup>1</sup> 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.

<sup>2</sup> <http://www2.epa.gov/rcra>

## APPENDIX 11: 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](http://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 necessary<sup>3</sup>.

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

---

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

## APPENDIX 11: 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 11: CONTRACTOR COMPLIANCE POLICY

### HVAC Contractor Employee Compliance Policy – MERCURY THERMOSTAT DISPOSAL

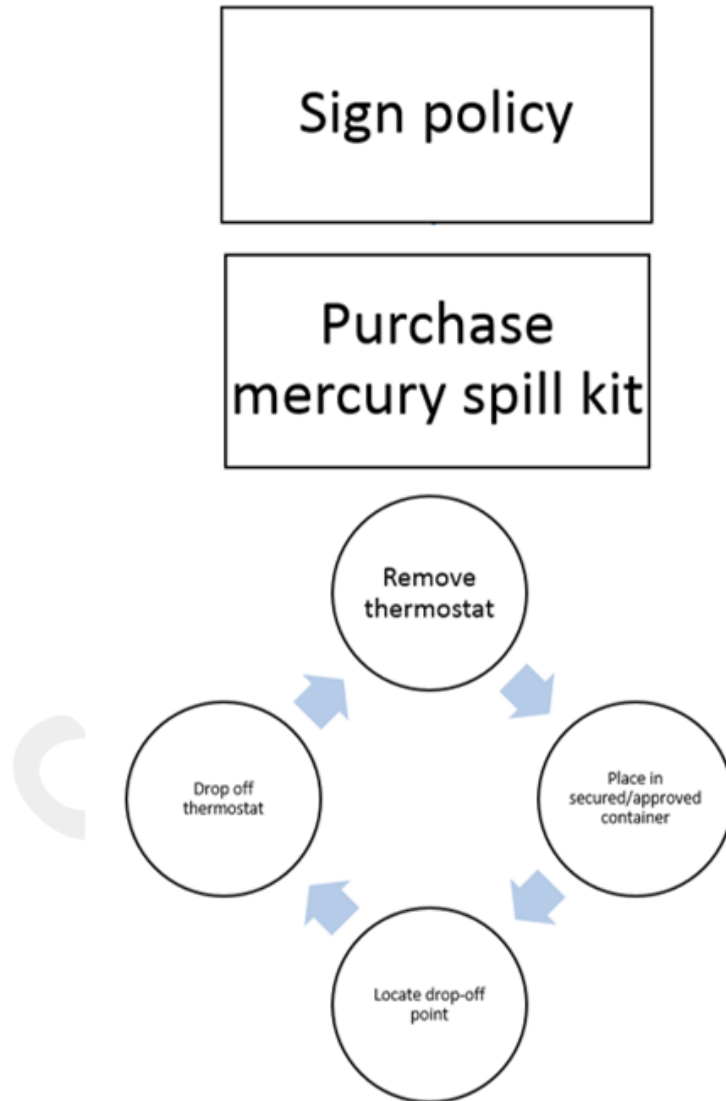
**Appendix 2 - Table with state specific legislation**

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 11: CONTRACTOR COMPLIANCE POLICY

### HVAC Contractor Employee Compliance Policy – MERCURY THERMOSTAT DISPOSAL

#### Appendix 3 – Proper Disposal Procedure Flow Chart



## APPENDIX 12: LOYALTY PROGRAM EMAIL

**Thermostat Recycling**  
CORPORATION



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

an industry-funded non-profit

# Your Rewards Await

Eight mercury thermostats earn \$25 in merchandise



### Earn premium merchandise for recycling mercury thermostats!

Earn rewards for recycling through the Thermostat Recycling Corporation's (TRC) "Recycle. Scratch. Earn." program. Recycle eight mercury thermostats and earn \$25 in merchandise. Or bank your points for higher-value items.

Many participants in the program have already earned merchandise, like:

- Amazon Kindle Fire
- Zmodo DVR Security System
- Logitech Gaming Keyboard
- Fandango Movie Tickets
- Nike Victory Apparel

For more information and a full list of participating HVAC wholesalers visit: [www.recycle-scratch-earn.com](http://www.recycle-scratch-earn.com)

[Learn More](#)



## APPENDIX 13: 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:

§ 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.



## APPENDIX 13: SAMPLE UTILITY IMPLEMENTER RFP REQUIREMENTS

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 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

## APPENDIX 13: SAMPLE UTILITY IMPLEMENTER RFP REQUIREMENTS

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 14: MAY EMAIL TO AESP SUBSCRIBERS

### 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.

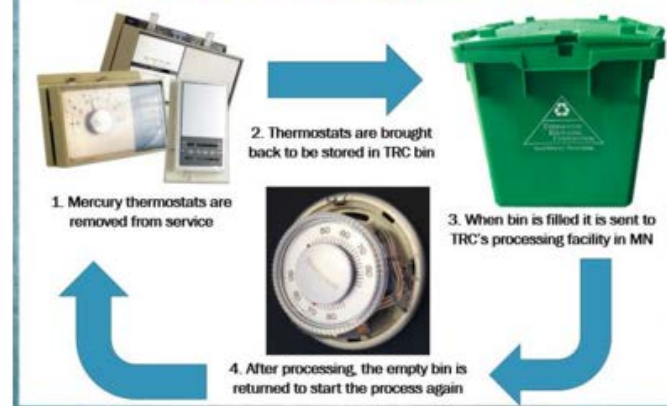
#### Take Advantage of the Non-profit Stewardship Program for Recycling

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; Nequauee, MI; Okemos, MI)
- Converge (Cincinnati, OH; Beltsville, MD; Mays Landing, NJ)

## APPENDIX 15: AUGUST EMAIL TO AESP SUBSCRIBERS

### 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)

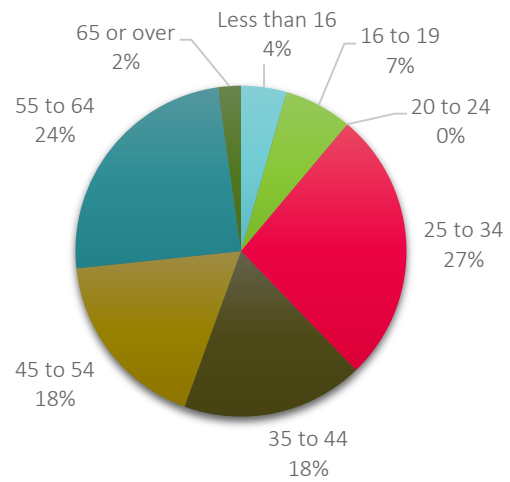
## APPENDIX 16: TECHNICIAN SURVEY RAW RESULTS

### DEMOGRAPHIC

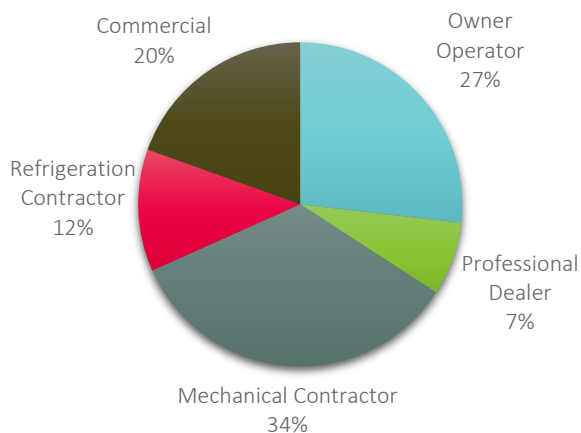
What is your gender?



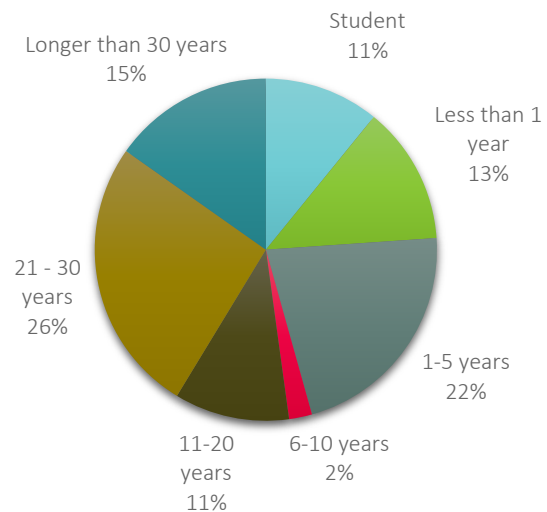
What is your current age?  
(U.S. Census)



What is the nature of your business?



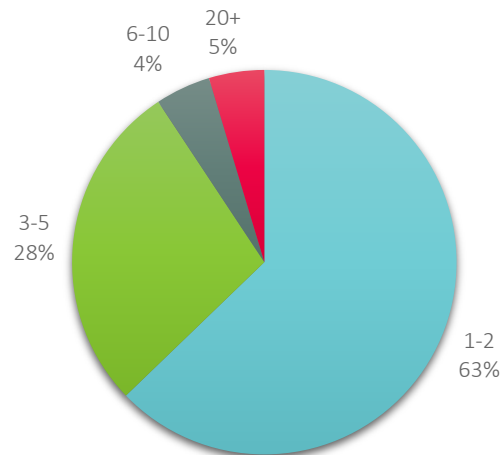
How long have you worked as a technician/contractor?



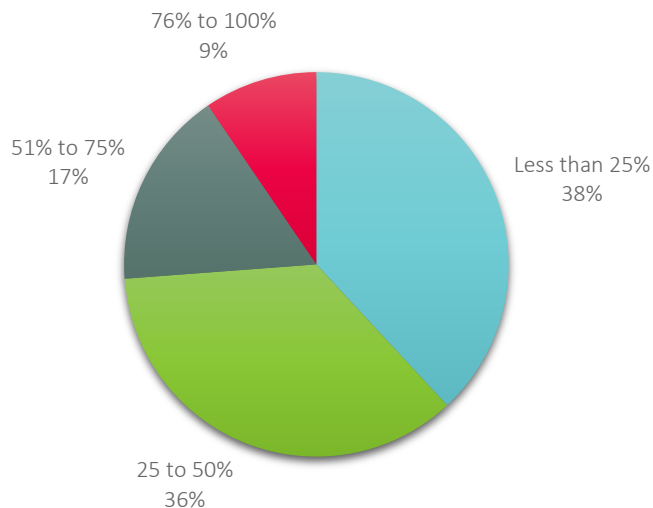
## APPENDIX 16: TECHNICIAN SURVEY RAW RESULTS

### THERMOSTAT REPLACEMENT

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



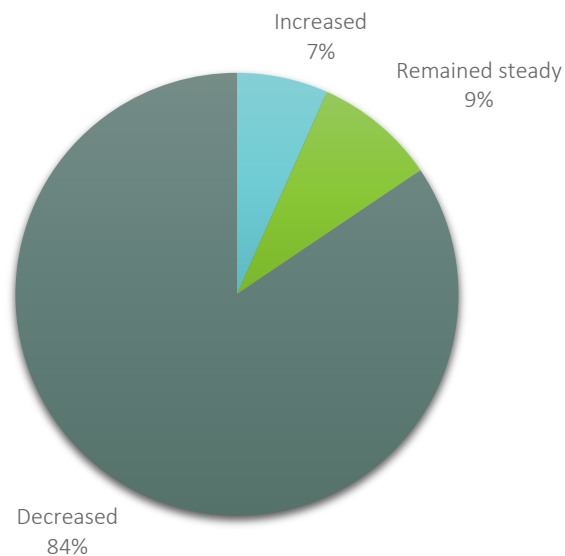
What percentage of the thermostats you replaced in 2014 would you estimate contained mercury?



## APPENDIX 16: TECHNICIAN SURVEY RAW RESULTS

### MERCURY CONTAINING THERMOSTAT PREVALENCE

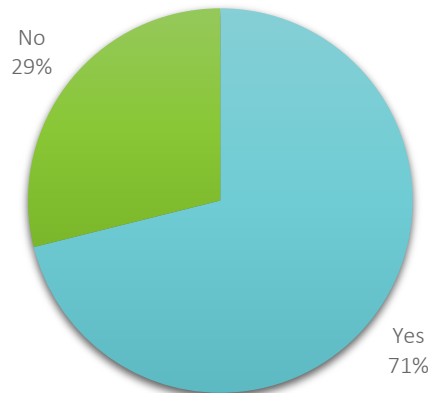
Would you say that during the time you have worked as a technician/contractor the number of mercury containing thermostats you see has...



## APPENDIX 16: TECHNICIAN SURVEY RAW RESULTS

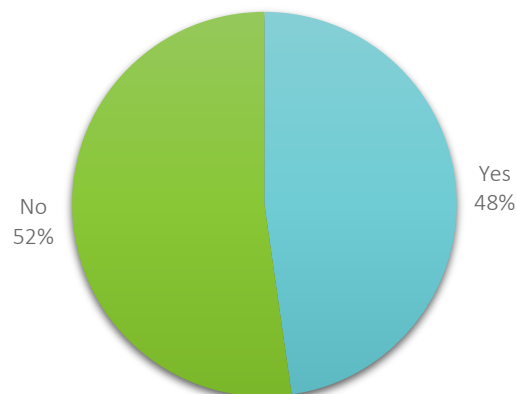
### EMPLOYER POLICIES

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?



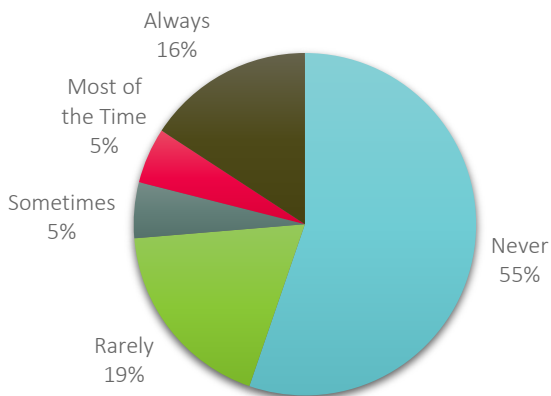


## APPENDIX 16: TECHNICIAN SURVEY RAW RESULTS

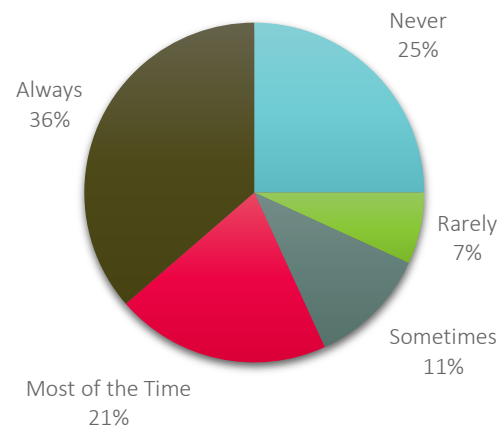
### DISPOSAL

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

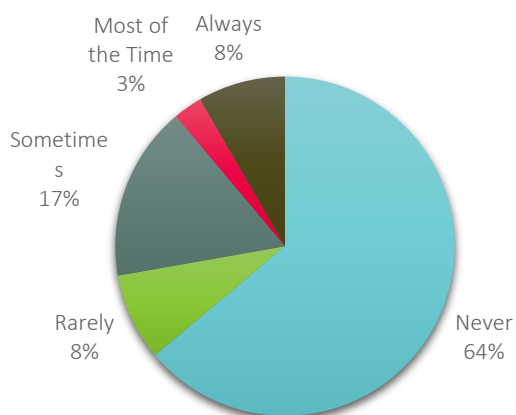
Company/office



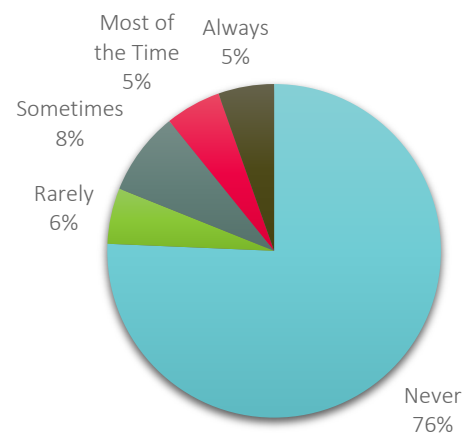
Wholesaler/Supply House



Hardware Store



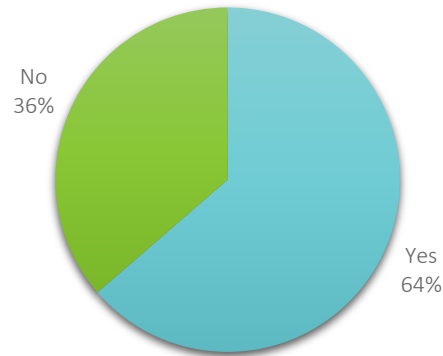
Trash



## APPENDIX 16: TECHNICIAN SURVEY RAW RESULTS

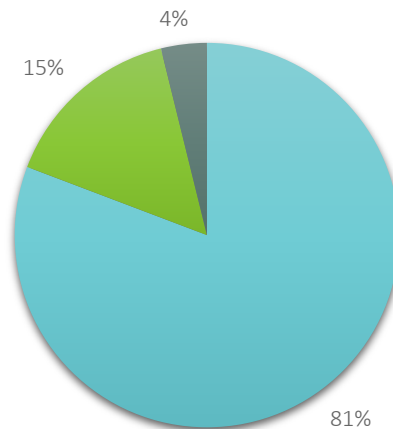
### GREEN BIN UTILIZATION

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.