



April 1, 2011

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

Re: 2010 Thermostat Recycling Corporation's Annual Report

Dear Ms. Stiner:

Attached is TRC's 2010 annual collection report for the Department. To the extent practicable TRC has made its best effort to be responsive to the Department's request for expense and collection data.

TRC would like to take the opportunity to summarize some of its major accomplishments in 2010.

- Notwithstanding continued economic challenges to the HVAC industry, the national recovery of thermostats increased by 29 percent, diverting almost 1,900 pounds of mercury from solid waste.
- Industry participation in TRC continued to grow and by the end of the year TRC represented 29 manufacturers that historically branded and distributed mercury switch thermostats.
- TRC continues to see substantial growth in access to the program, adding over 700 new collection locations in 2010. TRC saw solid growth in all collection location types in 2010.

Looking towards 2011, we will expand our outreach in Iowa and also request more support from the Department. To our knowledge Iowa DNR has conducted no outreach since spring 2009. In other states TRC has successfully leveraged assistance from the state to increase collections.

Sincere Regards,

A handwritten signature in black ink, appearing to read "Mark Tibbetts", is written over a horizontal line.

Mark Tibbetts  
Executive Director

## 2010 Thermostat Recycling Corporation Annual Report

### Collection Data

**Table 1: 2010 Iowa Collections by Brand**

	Whole Thermostats	Mercury Switches	Lbs Mercury
Honeywell	1593	1963	12.17
White Rogers	300	338	2.10
GE	22	52	0.32
Bard	1	1	0.01
Burnham	2	2	0.01
Carrier	24	40	0.25
Chromalox	0	0	0.00
ClimateMaster	0	0	0.00
Crane	0	0	0.00
Empire Comfort	0	0	0.00
Invensys	8	8	0.05
ITT	0	0	0.00
Lear Siegler	0	0	0.00
Lennox	135	167	1.04
Lux	4	2	0.01
McQuay	0	0	0.00
Nordyne	2	5	0.03
PSG	6	12	0.07
Rheem	11	11	0.07
Sears	22	23	0.14
Taco	0	0	0.00
Thomas & Betts	0	0	0.00
TPI	0	0	0.00
Trane	27	52	0.32
Uponor	0	0	0.00
Valliant	0	0	0.00
WW Grainger	0	0	0.00
York / JCI	8	10	0.06
Orphans	60	368	2.28
Total	2225	3054	18.93

TRC recovered 18.93 pounds of mercury from 2,225 intact mercury thermostats and mercury switches from Iowa collection locations in 2010. This is a decrease of 25% from 2009.

### 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, city, state, zip code, date returned, number of thermostats and bulbs by manufacturer and any non-conforming material.

The bin is returned to the business 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. In the event that a bulb breaks and mercury spills, the work area is designed to contain the spillage and the operators are trained in the clean up and disposal of mercury. 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 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 Bethlehem Apparatus Corporation in Hellertown, Pennsylvania for final processing of the mercury ampoules (bulbs). Bethlehem Apparatus meets or exceeds all local, state, federal and EPA regulations for the management of the product. Bethlehem's approvals for mercury recovery/recycling include:

- EPA - identification No. PAD002390961 (Bethlehem Apparatus Co., Inc.)
- EPA BDAT Requirement - satisfied by all recovery operations
- CERCLA (Comprehensive Environmental Response Compensation and Liability Act)
- Pennsylvania Department of Environmental Protection

The facilities' processing follows 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**

TRC marketing and promotion efforts targeted key audiences in Iowa. Our objective was to raise awareness of key components of Iowa's mercury thermostat law and to affect recycling behavior of the generators of waste mercury thermostats. Below is a summary of the activities and channels we utilized in support of this effort.

**Wholesaler Recruitment/Engagement**—TRC continued efforts to engage wholesale distributors to ensure that they are aware of the 1) mandate to collect waste mercury thermostats in Iowa, and 2) availability of the TRC program as a simple, low-cost means of compliance.

TRC continued working with the Heating Airconditioning Refrigeration Distributors International (HARDI) trade association. HARDI members represent approximately 80% of the domestic wholesale market for HVACR equipment. Most significantly, in October TRC and HARDI entered into a formal agreement to promote the TRC program to HARDI's members.

TRC attempted to engage with the American Supply Association both in writing and by phone (see Appendix A for a copy of correspondence) as well.

In advance of its July site visits, TRC again sent letters to (see Appendix B for copy of correspondence) to HVACR wholesalers in Iowa reminding them of their legal obligation to collect and the availability of the program. TRC also sent correspondence (see Appendix C for a copy of correspondence) to the executives of all 450 HARDI member companies inviting them to meet with TRC staff at the HARDI annual meeting.

TRC staff also conducted site visits to Iowa collection locations in July. TRC staff visited over 30 locations in Des Moines, Cedar Rapids, Waterloo, Dubuque, and Davenport. The visits were intended to verify participation, educate staff on the program, and provide promotional support available from the program. A discussion of our findings from the visits follows in recommendations/next steps.

**Retailer Engagement**—TRC engaged with representatives of large retailers in 2010 to ensure they were aware TRC was open to their participation in the program.

**Demolition Contractor Engagement**—TRC engaged with the National Demolition Association, informing them about the program (See Appendix D for copy of correspondence) and the legal obligation to recycle waste thermostats in certain states.

**State Energy Office Outreach**—TRC sent letters to state energy office officials in most US states, including Iowa, informing them on the need to recycle waste mercury thermostats and the availability of the program (see Appendix E for copy of correspondence).

### **Summary of Outreach by Channel**

**Local, Regional, and National Trade Shows**—TRC attended and exhibited at the following trade shows relevant to Iowa:

January 25-27: AHR Expo, Orlando, Florida. The largest national trade show for HVACR industry. TRC staff exhibited and promoted program to HVAC contractors, HVAC manufacturers, and HVAC distributors. The show had a total registered attendance of 44,000.

April 16-17: PHCCA Five-State Show, Sioux Falls, South Dakota. Regional plumbing and heating trade show.

May 24-25: National Oil Heat Service Managers annual meeting and trade show, Providence, Rhode Island. TRC also sponsored the opening reception for additional visibility at the event.

June 23-24: National Town Meeting for Demand Response, Washington, DC. This was a two-day event focusing on demand response and included both utilities and thermostat contractors. TRC exhibited at the event.

July 27-29: North American Hazardous Materials Management Association (NAHMMMA) Annual Meeting, St. Pete Beach, Florida. TRC exhibited and also presented on the program.

September 9: First Supply vendor showcase, Dubuque, IA. The show was sponsored by First Supply an Iowa HVACR wholesale distributor. The event is attended by First Supply customers.

September 23-24: Comfortech, Baltimore, Maryland. Comfortech is a national trade show for HVAC contractors sponsored by Penton Media, publishers of Contracting Business.

October 23-26: HARDI annual meeting, Houston, Texas. TRC exhibited at the event, which targets representatives of approximately 80% of the wholesale market for HVACR products.

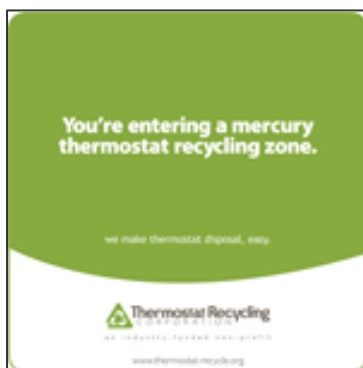
**Program website**—In October 2010 TRC launched a new website. The site updated and reorganized content; making pertinent information on the program to various audiences more accessible. The new website may be viewed at [www.thermostat-recycle.org](http://www.thermostat-recycle.org).

**Promotional Took-kit**—Concurrent with the launch of the new website, TRC added high-resolution templates of a number of promotional items. These items are free to use by TRC collection points. Developed for HVAC wholesale distributors, these items are available at no cost to TRC collection points to assist them in promoting the program to their customers. Items include a poster, bill stuffer, invoice template, cling sticker, banner, postcard, and print advertisement. Once the inventory of the current poster and window cling is used, TRC will replace those items with materials from the toolkit.

Poster:



Window Cling



Advertisement



## Earned Media

TRC sent letters to various stakeholders in Iowa (see Appendix F for copy of correspondence). They are as follows:

**Heating, Venting, and Air Conditioning Wholesale Distributors:** In July of 2010, TRC sent letters regarding An Act Relating to the Collection and Recycling of Mercury-Added Thermostats (HF 2669) to wholesale distributors in the state. The letter also explained TRC's program in detail and provided contact information for Iowa's Land Quality Bureau.

**Iowa Environmental Council (IEC):** In October 2010, TRC reached out to the Iowa Environmental Council to promote the issue and TRC's program to IEC's audience. It was included in IEC's electronic December newsletter.

**Plumbing, Heating, Cooling Contractors of Iowa (PHCC-IA):** In October 2010, TRC reached out to Iowa's PHCC chapter about the law and TRC's program. TRC also encouraged PHCC-IA to use provided copy for their newsletter or other relevant publications.

TRC also received coverage in national trade press on numerous occasions. For instance the program was covered in *Indoor Comfort News* (June 2010, July 2010, and October 2010). The HARDI/TRC media release (December, 2010) was covered in *Waste and Recycling News* and *Air Conditioning Today*. TRC's program also received extensive coverage in the HARDI Convention Daily (distributed to all HARDI annual convention attendees) and *HVACR Distributor* (see appendix G for examples of media coverage).

### **Paid Advertising**

TRC ran rotating banner advertisements (Exhibit 1) on the websites contractingbusiness.com and Hvac-talk.com during the months of April, May and June. The advertisement was animated with scrolling images of thermostats. The final message directed contractors to TRC's website.

Both sites are national and target the HVAC contracting audience. Contractingbusiness.com averages 59,000 page views and 27,000 unique visitors per month. Hvac-talk.com averages 1.5 million page views and 221,000 unique visitors per month.

### **Exhibit 1: Web Banner Advertisement**





TRC ran a quarter page advertisements in *Indoor Comfort News* in the April, August, and November editions (see exhibit 2). *Indoor Comfort News* has 25,000 subscribers, primarily in the Western United States.

**Exhibit 2: Print Advertisement *Indoor Comfort News***



**Direct Mail**— TRC developed and mailed a postcard (Exhibit 3) to approximately 1,200 HVAC contractors in Iowa. The mailing list was sourced from D&B Zap data. TRC conducted the mailing in the spring and again in the fall of 2010.

**Exhibit 3: Front of Postcard**



## **Program Expenses**

TRC program expenses for 2010 reflect changes in marketing strategy and certain one-time expenses that occurred in 2009. For instance, in 2009 TRC expended over \$60,000 on the

California study (reflected in “administration”) on mercury thermostat disposal and over \$20,000 in printing expense (reflected in “marketing”) for incentive coupons as mandated by Maine and Vermont law.

**Exhibit 3: 2010 Program Expenses**

TRC Staff and Administration	\$231,757
Recycling Costs	\$300,096
Insurance	\$17,771
Statutory Incentive Payments	\$40,380
New Collection Containers	\$18,219
Travel	\$28,809
Direct Expenses for Marketing & Outreach	<u>\$76,696</u>
<b>Total</b>	\$713,728

TRC also shifted from certain paid advertising that was deemed ineffective and instead emphasized industry events and trade shows. As such, travel increased significantly in 2010 as TRC staff (including a new full-time outreach staff person hired in November 2009) regularly attended both national and regional industry trade shows.

In 2010 TRC also began the development of new custom database and while budgeted for 2010, less than 30% of the project expense was booked during the fiscal year and will be carried over to 2011.

TRC expenses include:

- **TRC Staff and Administration:** Includes staff and consultants, general office expenses, telecommunications, legal, and other administrative expenses. Includes labor costs to implement Iowa program.
- **Insurance:** Pollution and liability insurance.
- **Travel:** All travel in 2010 includes travel to trade shows to promote program.
- **Recycling Costs:** All costs (including labor) associated with transporting, processing, and properly managing waste thermostats. Also includes costs associated with fulfilling new bin orders and data management.
- **New Collection Containers:** Direct cost for new containers ordered in 2010.
- **Marketing/Outreach & Printing:** Includes direct costs to develop and print program collateral; direct mail, website development, national and state advertising, sponsorships and other outreach activities. Marketing/Outreach does not include any TRC labor costs.

## **Recommendations/Next Steps**

In 2010 TRC recovered 2,225 whole thermostats from participating collection locations in Iowa, a decline of 758 units. To put this into context, this represents a decline of about 10 bin shipments of waste thermostats last year.



There may be many factors at work affecting collection numbers including:

- Less thermostats were available for recycling in 2010.
- Collections were higher in 2009 as hoarded thermostats were returned in greater amounts in the first year of the program as compared to the second.
- One or more collection points abandoned the program in 2010.

Regardless of the cause(s) for the decline in numbers in 2010, the one factor that most greatly influences collections is access to the program. The states with high levels of HVAC wholesale distributor participation in the program have the highest collection rates.

As such, TRC remains very concerned with the level of participation among HVAC wholesale distributors in Iowa. Out of approximately 130 potential wholesale collection locations in Iowa, only 58 have requested recycling containers. Moreover, out of a total of 84 locations in Iowa, only 26 returned product in 2010.

Our site visits validated the numerical data. TRC staff visited over 30 HVAC wholesale distributors in Cedar Rapids, Des Moines, Waterloo, Dubuque, and Davenport. Less than 50 percent of the locations were actively collecting waste thermostats and it is the *active* collection of thermostats that is essential to the program's long term success. The program must be visible at the location and staff must be informed about the program and encourage participation.

TRC's challenge is that the collection locations are independent businesses that it has no control over. TRC has no enforcement authority and can not compel any collection location to take any action including ordering a container, shipping a container when full, or promoting the program.

Looking towards 2011 and beyond TRC has refined its marketing strategy and will be focusing on the following:

1. Directly engaging wholesale distributors: TRC has seen great success in California and other states where wholesale distributors actively promote the program to their customers. This entails doing more than required by law. TRC's new promotional tool-kit was the first step in this strategy. Our objective is to make it simple (and low-cost) for distributors to promote the program. However, several large wholesale distributors see value in the TRC program and have embraced this concept. We see the cooperative partnership with HARDI as another key to this strategy. This relationship provides TRC direct access to key decision-makers at many wholesale distributors in the United States.

2. Leveraging member marketing channels: TRC is working with its member companies in developing strategies to leverage their marketing/sales channels to promote TRC. This may take the form of co-branded collateral promoting the program, award/recognition programs, or other activities that reinforce the importance and value of the program to distributors.

3. Expanding national and regional promotion of the program: In 2010 TRC attended ten national and/or regional industry events. TRC found significant value in attending national and

some of the regional shows and will expand this effort in 2011. TRC also (see below for summary of specific activities) expanded the scope of its national/regional advertising in 2011.

4. At the state-level, TRC sees opportunities to focus on key sectors in partnership with state regulators and others. Energy efficiency programs led to significant increases in collections in Maryland, Michigan, Kansas, and Texas in 2010 and we hope to build upon that in other states where opportunities exist. TRC also sees opportunities in encouraging collection point participation in collaboration with state regulators.

5. TRC is also committed to improvement in the program's "infrastructure." TRC will bring a new database into production in 2011 and this will lead to significant improvements in our ability to manage data (including the search tool on TRC's website). TRC is also developing additional collateral in 2011, including point-of-sale information, new advertising creative, and contractor materials.

6. TRC is exploring developing a consumer-facing program that serves dual purpose of raising awareness among consumers on the need to recycle mercury thermostats and recognizing HVAC contractors that properly manage waste mercury thermostats. Initial plans are to leverage the channels afforded by new media, including social media in this effort.

7. Encourage the DNR to become more engaged in supporting the program. For instance, Maine, Vermont, New Hampshire, and even California have all conducted ongoing outreach to HVACR wholesale distributors including site visits.

In 2011, in support of this marketing strategy, TRC among other things will:

- Attend and exhibit at several national and regional industry trade shows.
- Expand its advertising buy in [www.contractingbusiness.com](http://www.contractingbusiness.com) and [www.hvac-talk.com](http://www.hvac-talk.com) to 4 months (spring and fall). TRC is also developing new creative for this campaign. TRC will repeat the advertising buy in *Indoor Comfort News* but with updated advertising copy.
- Place a postcard insert in HVACR Business (April and September issues) that will go to 12,000 subscribers in states, including Iowa, with mercury thermostat disposal bans and/or mandates for recycling.
- Update its website to recognize and promote HVAC distributor participation.
- Directly recruit HVAC distributor participation in the program and encourage distributors to actively promote the program to their customers.
- With HARDI, develop an award program that recognizes the HVAC distributors' contribution to the success of the program.
- Continue efforts to engage with other industry stakeholders and build support for the program.

## Appendix A: Correspondence to American Supply Association



September 13, 2010

Mr. Michael Adelizzi  
Executive Vice President  
American Supply Association  
222 Merchandise Mart, Suite 1400  
Chicago, IL 60654

Subject: Legal Mandate in Nine States for HVAC Wholesale Distributors to Collect Waste Mercury Thermostats

Dear Mr. Adelizzi:

Thermostat Recycling Corporation (TRC) requests your assistance in informing your members about their legal obligations in several states to collect waste mercury thermostats.

As you maybe aware, many older thermostats contain between three and twelve grams of mercury. While safe when in use, these thermostats may pose a risk to human health and the environment when discarded in solid waste.

In an attempt to increase the number of thermostats diverted from solid waste, several states have passed laws relating to the collection and disposal of waste mercury thermostats. Currently seven states (California, Iowa, Maine, Montana, New Hampshire, Pennsylvania, and Vermont) require wholesale distributors of HVAC equipment to act as a collection point for waste mercury-containing thermostats. Two additional states (Illinois and Rhode Island) begin mandating collections in 2011.

Fortunately, for wholesale distributors who currently are not collecting mercury thermostats, a simple and low-cost collection/recycling program that satisfies most state legal obligations exists. Manufacturers of mercury-containing thermostats started the non-profit Thermostat Recycling Corporation in 1997 to facilitate the collection of all brands of mercury-containing thermostats.

For a modest one-time fee (currently \$25 per collection container), TRC provides a sturdy plastic collection container, pre-paid shipping label, and educational materials to collection points. TRC assumes all on-going costs for shipping and processing of the thermostats. All that TRC requires is that collection locations only ship whole mercury-containing thermostats (no other mercury-containing products) with their covers, return the container at least once a year, and assistance in promoting the program.

## Appendix B: Sample of Correspondence to HARDI members



To:

From: Mark Tibbetts  
Executive Director  
Thermostat Recycling Corporation

Date: July 12, 2010

Subject: HF 2669 – An Act Relating To The Collection and Recycling of Mercury-Added Thermostats

It has come to our attention that many HVAC distributors with operations in Iowa still may not be aware of the requirements of HF 2669 — An Act Relating To The Collection and Recycling of Mercury-Added Thermostats. **The law requires all HVAC wholesalers with a physical location in the state to act as a collection point.**

Fortunately, there is a not-for-profit organization funded by manufacturers that offers a low cost and simple program that makes it easy for the HVAC industry to comply with the law. The Thermostat Recycling Corporation (TRC) provides the following services to HVAC distributors:

- A comprehensive recycling program—for a one-time participation fee of \$25.00, TRC provides a reusable and sturdy plastic recycling container as well as storage and shipping materials. TRC also covers all ongoing costs to ship (via Federal Express) and process mercury-containing thermostats collected through the program.
- Program promotional materials—including a window/counter cling, promotional posters, and information for contractors.

When mercury-containing thermostats reach end-of-use and become waste, it is important to ensure that they are properly disposed. Mercury-containing thermostats contain between 3-12 grams of mercury and may pose a risk to the environment and public health if not disposed of properly. **Collecting waste mercury thermostats is a simple, low cost, and easy way for your business to “go green” and help keep mercury out of the environment.**

Thank you for your attention to this important matter. We have enclosed a participation form and pre-stamped envelope for your convenience. For more information on the law and your responsibilities to distribute the provided educational materials to contractors, service technicians, and homeowners, please contact:

Theresa Stiner  
Environmental Specialist Senior  
IDNR, Land Quality Bureau  
(515) 281-8646  
Theresa.Stiner@dnr.iowa.gov

For more information on the TRC's program, please contact:

Virginia Borchardt  
Thermostat Recycling Corporation  
703-841-3243  
TRC@thermostat-recycle.org



## Appendix C: Sample of Correspondence to HARDI members



October 7, 2010

Dear Jess Hill:

If you have operations in California, Iowa, Illinois, Maine, Montana, New Hampshire, Pennsylvania, Rhode Island, or Vermont, please plan on visiting with Thermostat Recycling Corporation (TRC) staff at HARDI's Conference Booth Program on Monday, October 25, during HARDI's annual meeting in Houston, Texas. TRC staff will be at booth 429 and attending the full conference.

As you may be aware, these states have passed mercury thermostat legislation. Among other things, the legislation requires all HVAC wholesale distributors with facilities in these jurisdictions to act as a collection point for waste mercury-containing thermostats. While many wholesale distributors have taken advantage of TRC's program and ordered collection containers, many have not begun to actively collect mercury thermostats at all locations in these states.

Failing to act as a collection point could result in penalties that range from sales bans on residential controls to civil penalties up to \$25,000 a day per facility.

TRC staff will be prepared to brief you on your specific legal requirements in each state, which of your facilities are signed up for the program, and the volume of thermostats collected at your locations. TRC staff will also explain how manufacturers, through TRC's take-back program, make compliance easy and nearly cost-free.

If you don't have legal obligations in the states where you have operations, participating in TRC's program is still a great way to promote your business as a "green business" and provide a valuable service to your customers with little direct cost to you. Please visit our booth and we can provide you with all the information you need to participate in and promote the TRC program.

For more information on TRC, please visit our website at [www.thermostat-recycle.org](http://www.thermostat-recycle.org). If you would like to speak with TRC staff in advance of HARDI's meeting, please do not hesitate to contact the undersigned at 703-841-3246 or at [mark.tibbetts@nema.org](mailto:mark.tibbetts@nema.org).

Sincere Regards,

Mark Tibbetts  
Executive Director

## Appendix D: Correspondence to National Demolition Association



May 4, 2010

John Lloyd  
Vice President  
Lloyd's Construction Services, Inc.  
7207 West 128th Street  
Savage, MN 55378

Dear Mr. Lloyd:

This letter is to serve as a follow-up to our email conversations regarding outreach efforts between the National Demolition Association (NDA) and the Thermostat Recycling Corporation (TRC).

We would like to thank you again for your efforts in presenting information about TRC to the Board of Directors as well as the Environmental Committee at the NDA 2010 Convention. We also appreciate NDA's website including a link and information on TRC's program. Once our website updates are complete, we plan on incorporating a link directing to NDA's website as well.

We look forward to continued collaboration on this issue. We welcome and appreciate the support and assistance.

Please feel free to contact me at [mark\\_tibbetts@nema.org](mailto:mark_tibbetts@nema.org) or (703) 841-3243 if you need further assistance.

Thank you for your time.

Sincere Regards,

A handwritten signature in black ink, appearing to read "Mark Tibbetts", is written over a faint, large, stylized recycling symbol background.

Mark Tibbetts  
Executive Director



## Appendix E: Sample correspondence with State Energy Officials

Contact  
State Department  
Address  
City State Zip

Date

Dear \_\_\_\_\_:

This letter is intended to bring your attention to the issue of the proper disposal of end-of-use mercury-containing thermostats. As you may be aware, many older thermostats contain on average 3 grams of mercury and it is important that at the end-of-use these thermostats are properly disposed of to prevent release of mercury into the environment.

In fact, many states regulate the disposal of mercury-containing products and several go further requiring contractors to assume responsibility for the proper disposal of mercury-containing thermostats.

Fortunately, the proper end-of-life management of mercury thermostats is easy. Voluntarily founded by manufacturers, the Thermostat Recycling Corporation provides an easy and affordable way for contractors to properly dispose of mercury-containing thermostats. TRC has collection locations in 47 states that accept end-of-use thermostats at no charge. TRC absorbs all costs related to shipping, handling, and processing of the waste thermostats. To date, TRC has collected and recycled over 4 tons of mercury and nearly 1 million thermostats.

It is our understanding that many state energy programs are promoting the use of electronic programmable thermostats. We strongly encourage you to incorporate thermostat recycling into your programs. Additionally, adding a link to TRC's website from your own may encourage participation in the program.

To learn more about TRC and how it can support thermostat recycling in your state, please refer to the attached fact sheet that we've included with this letter. Also, you may visit our website at [www.thermostat-recycle.org](http://www.thermostat-recycle.org). To contact TRC directly, email [Mark.Tibbetts@nema.org](mailto:Mark.Tibbetts@nema.org) or call 703-841-3246.

Sincere Regards,

Mark Tibbetts  
Executive Director  
Thermostat Recycling Corporation

## Appendix F: Correspondence with HVAC Stakeholder Organizations

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COPY

### Borcherdt, Virginia

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**From:** Borcherdt, Virginia  
**Sent:** Friday, October 29, 2010 4:41 PM  
**To:** 'phcc@phccia.org'  
**Subject:** Content on Thermostat Recycling for Newsletter or other Publications  
**Attachments:** Article for IA stakeholder organizations\_revised\_2010 .doc; Short TRC Blurb state laws\_revised\_2010.doc

Mr. Kruse,

I am writing you to pass along possible content for your newsletter and/or other relevant publications. Heating season is a great time of year to get the word out about our program to recycle mercury thermostats. We appreciate any assistance that your organization can give in sharing this information.

Thank you for your time. If you have any questions, please do not hesitate to contact us!

Best Regards,

Virginia Borcherdt  
Outreach and Communications  
Thermostat Recycling Corporation  
703-841-3243 ( p )  
703-841-3343 ( f )

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COPY

### Borcherdt, Virginia

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**From:** Laws, Lynn [LynnLaws@iaenvironment.org]  
**Sent:** Monday, November 01, 2010 9:41 AM  
**To:** Borcherdt, Virginia  
**Subject:** RE: Content on Thermostat Recycling for Newsletter or other Publications

Thanks Virginia. I'll include this in our December electronic newsletter, which goes out at the end of this month.

**Lynn Laws** | Communications Director | Iowa Environmental Council  
521 East Locust, Suite 220 | Des Moines, IA 50309 | 515-244-1194, ext 210  
[iaenvironment.org](http://iaenvironment.org) | [Facebook: IAEnvironmentalCouncil](https://www.facebook.com/IAEnvironmentalCouncil) | [Twitter: Iowa\\_Env](https://twitter.com/Iowa_Env)

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**From:** Borcherdt, Virginia [mailto:Virginia.Borcherdt@Nema.org]  
**Sent:** Friday, October 29, 2010 3:50 PM  
**To:** Laws, Lynn  
**Subject:** Content on Thermostat Recycling for Newsletter or other Publications

Lynn,

Attached is the possible content for your newsletter and/or other relevant publications. Heating season is a great time of year to get the word out about our program to recycle mercury-containing thermostats. We appreciate any assistance that your organization can give in sharing this information.

Thank you for your time. If you have any questions, please do not hesitate to contact me!

Best Regards,

Virginia Borcherdt  
Outreach and Communications  
Thermostat Recycling Corporation

Appendix G: Earned media example:

## WASTE & RECYCLING NEWS

### RECYCLING BRIEFS

#### SCRAP

### Schnitzer to expand auto parts biz

A series of transactions will expand Schnitzer Steel Industries' auto parts business, the company said.

The company acquired most of the assets of Waco U-Pull-It Inc. of Waco, Texas; a facility in Stockton, Calif., that will be developed into a specialty self-service facility; and a property adjacent to one of the company's existing facilities in Portland, Ore., that will allow that facility to expand.

"These three transactions continue the expansion of the footprint of our auto parts business and demonstrate the disciplined execution of our stated strategy to develop scale in core supply regions to obtain scrap at its earliest stage of disposal," said Tamara Lundgren, CEO of Schnitzer Steel Industries.

The Waco acquisition adds to SST's existing operations in the Dallas/Fort Worth area and in San Antonio. Lundgren called Texas "a high-growth market."

SST's auto parts business sells used auto parts through 45 self-service facilities located in 14 states and in two Canadian provinces. The company also recycles and exports metals and has a steel manufacturing business.

#### MERCURY RECYCLING

### Two groups join to recycle thermostats

Two organizations are teaming up to properly dispose of old mercury-containing thermostats.

The Thermostat Recycling Corp. and Heating, Air Conditioning & Refrigeration Distributors International have formed a partnership.

## Appendix H: Iowa Locations that have Requested Collection Containers

Customer Type	Business Name	City	State	ZIPCODE
HHW FACILITY	Butler Co RCC	Allison	IA	50602
HHW FACILITY	Cass County Landfill & Recycling Center/RCC	Atlantic	IA	50022
HHW FACILITY	Cedar Rapids / Linn county Solid Waste Agency/RCC	Marion	IA	52302
HHW FACILITY	Clinton County Sanitary Landfill/RCC	Clinton	IA	52732
HHW FACILITY	Council Bluffs Recycle Center/RCC	COUNCIL BLUFFS	IA	51501
HHW FACILITY	Dickinson RCC	Milford	IA	51351
HHW FACILITY	Dubuque Metro Sanitary landfill/RCC	Dubuque	IA	52001
HHW FACILITY	Floyd-Mitchell-Chickasaw Solid Waste Mgmt Agency/RCC	Elma	IA	50628
HHW FACILITY	Fremont Co RCC	Sidney	IA	51652
HHW FACILITY	Great River Waste	Ft. Madison	IA	52627
HHW FACILITY	Hamilton co RCC	Webster City	IA	50595
HHW FACILITY	Haz Chem center of South East Iowa/RCC	West Burlington	IA	52655
HHW FACILITY	Iowa City RCC	Iowa City	IA	52246
HHW FACILITY	Landfill of North Iowa/RCC	Clear Lake	IA	50428
HHW FACILITY	Mahaska Co RCC	Oskaloosa	IA	52577
HHW FACILITY	Metro Waste Authority/RCC	Bondurant	IA	50035
HHW FACILITY	NW Iowa Area Solid Waste Agency/RCC	Sheldon	IA	51201
HHW FACILITY	Ottumwa / Wapello RCC	Ottumwa	IA	52501
HHW FACILITY	PCB Solid Waste Agency/RCC	Cherokee	IA	51012
HHW FACILITY	Prairie Solid Waste Agency/RCC	Creston	IA	50801
HHW FACILITY	Rathbun Area Solid Waste Commission/RCC	Centerville	IA	52544
HHW FACILITY	Scott Co RCC	DAVENPORT	IA	52804
HHW FACILITY	SEMCO RCC	Richland	IA	52585
HHW FACILITY	Sioux City RCC	SIOUX CITY	IA	51104

HHW FACILITY	Woodbury Co RCC	Moville	IA	50139
Wholesaler/Dist	JOHNSTONE SUPPLY CO	SIOUX CITY	IA	51104
Wholesaler/Dist	Adel Wholesalers Inc	Bettendorf	IA	52722-4857
Wholesaler/Dist	AIR MANAGEMENT SUPPLY	Des Moines	IA	50316
Wholesaler/Dist	Cedar Rapids Sheet Metal	Cedar Rapids	IA	52401-2149
Wholesaler/Dist	COMFORT PRODUCTS	URBANDALE	IA	50323-0000
Wholesaler/Dist	COMFORT PRODUCTS	CEDAR FALLS	IA	50613-0000
Wholesaler/Dist	CONSOLIDATED MATERIALS COMPANY	Des Moines	IA	50313
Wholesaler/Dist	Consolidated Supply	Des Moines	IA	50313-0000
Wholesaler/Dist	DAVENPORT TRANE PARTS CENTER	DAVENPORT	IA	52806
Wholesaler/Dist	DAY DISTRIBUTING	WATERTON	IA	50701
Wholesaler/Dist	DENNIS SUPPLY CO	SIOUX CITY	IA	51103-0000
Wholesaler/Dist	DENNIS SUPPLY CO	COUNCIL BLUFFS	IA	51501-0000
Wholesaler/Dist	DEY DISTRIBUTING	URBANDALE	IA	50322-0000
Wholesaler/Dist	Dubuque Supply	Dubuque	IA	52004-0117
Wholesaler/Dist	FIRST SUPPLY	Dubuque	IA	52001
Wholesaler/Dist	GUSTAVE A LARSON	Cedar Rapids	IA	52405-0000
Wholesaler/Dist	GUSTAVE A LARSON	Des Moines	IA	50321-0000
Wholesaler/Dist	GUSTAVE A LARSON	MASON CITY	IA	50401-

				0000
Wholesaler/Dist	GUSTAVE A. LARSON CO	MASON CITY	IA	50401-5730
Wholesaler/Dist	HALVORSON Trane	CLIVE	IA	50325-0000
Wholesaler/Dist	HEATING AND COOLING SUPPLY CO., INC	Waterloo	IA	50703
Wholesaler/Dist	HOSIER REFRIGERATION SUPPLY	Cedar Rapids	IA	52401-2135
Wholesaler/Dist	HOSIER REFRIGERATION SUPPLY	Des Moines	IA	50309-0000
Wholesaler/Dist	IOWA WHOLE SUPPLY	MARSHALLTOWN	IA	50158
Wholesaler/Dist	JOHNSTONE SUPPLY #155	Waterloo	IA	50701
Wholesaler/Dist	JOHNSTONE SUPPLY CO	URBANDALE	IA	50322
Wholesaler/Dist	JOHNSTONE SUPPLY CO	0	0	50322-0000
Wholesaler/Dist	JOHNSTONE SUPPLY CO	SIOUX CITY	IA	51106-5802
Wholesaler/Dist	JOHNSTONE SUPPLY CO	Waterloo	IA	50701-5511
Wholesaler/Dist	JOHNSTONE SUPPLY CO	DAVENPORT	IA	52807-0000
Wholesaler/Dist	JOHNSTONE SUPPLY CO	DAVENPORT	IA	52806
Wholesaler/Dist	JOHNSTONE SUPPLY CO	Bettendorf	IA	52722-0000
Wholesaler/Dist	KELLY SUPPLY COMPANY	Oskaloosa	IA	52577-0000
Wholesaler/Dist	Kretschmer Tredway Co.	Dubuque	IA	52001-0000
Wholesaler/Dist	Lennox Industries Inc.	MARSHALLTOWN	IA	50158-0000



Wholesaler/Dist	Lennox Industries Inc.	URBANDALE	IA	50323-2301
Wholesaler/Dist	Nelson and Hagy	Waterloo	IA	50701-0000
Wholesaler/Dist	NICHOLS CONTROLS & SUPPLY, INC.	Des Moines	IA	50316-3654
Wholesaler/Dist	PLUMB SUPPLY COMPANY	Des Moines	IA	50313
Wholesaler/Dist	PLUMB SUPPLY COMPANY	PELLA	IA	50219
Wholesaler/Dist	PLUMB SUPPLY COMPANY	Iowa City	IA	52240
Wholesaler/Dist	PLUMB SUPPLY COMPANY	AMES	IA	50010
Wholesaler/Dist	PLUMB SUPPLY COMPANY	MASON CITY	IA	50401-0000
Wholesaler/Dist	PLUMB SUPPLY COMPANY	Cedar Rapids	IA	52404-0000
Wholesaler/Dist	PLUMB SUPPLY COMPANY	MARSHALLTOWN	IA	50158
Wholesaler/Dist	PLUMB SUPPLY COMPANY	WAUKEE	IA	50263
Wholesaler/Dist	PLUMBERS SUPPLY CO.	Iowa City	IA	52246-0000
Wholesaler/Dist	PLUMBING & HEATING WHOLESale	SIOUX CITY	IA	51101
Wholesaler/Dist	PLUMBING & HEATING WHOLESale	CARROL	IA	51401
Wholesaler/Dist	PLUMBING & HEATING WHOLESale	SIOUX CENTER	IA	51250
Wholesaler/Dist	PLUMBING & HEATING WHOLESale	SPENCER	IA	51301
Wholesaler/Dist	REPUBLIC COMPANY	DAVENPORT	IA	52803
Wholesaler/Dist	SIOUX CITY WINAIR CO	SIOUX CITY	IA	51101-0000
Wholesaler/Dist	Wayne Dennis Supply	Des Moines	IA	50313-0000
Wholesaler/Dist	Wayne Dennis Supply	CLOVE	IA	50325-0000

Wholesaler/Dist	WAYNE DENNIS SUPPLY CO	AMES	IA	50010
Wholesaler/Dist	WAYNE DENNIS SUPPLY CO	URBANDALE	IA	50322
Wholesaler/Dist	WAYNE DENNIS SUPPLY CO	Des Moines	IA	50313
Wholesaler/Dist	WAYNE DENNIS SUPPLY CO	Waterloo	IA	50701