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SB0350

Environment	2214-2220, 2228-2246, 2300, 2301, 2376-2377, 2383, 2384-2386, 2388- 2389, 2430, 2431, 2457- 2483	65
House	6336-6342	7
<u>Senate</u>	<u>1100-1107, 1178-1179</u>	<u>10</u>
		82

**JOINT
STANDING
COMMITTEE
HEARINGS**

**ENVIRONMENT
PART 7
2085 – 2412**

2012

bill I have to buy insurance which I might not be able to afford. I might close down my gas stations which can create unemployment or increase my gas price which will hurt consumers. That's it. Short.

REP. ROY: Inaudible -- point out that now you're the last one to come up on the tanks. Any questions or comments for Mr. Ayaz? If not, thank you very much.

MUSTAFA AYAZ: Thank you.

REP. ROY: Okay. Mark Kohorst with Carroll Hughes followed by Marty Mador and a change of topic.

CARROLL HUGHES: Thank you, Chairman Roy, Chairman Meyer, members of the environment committee. I'm Carroll Hughes representing the National Electrical Manufacturers Association and I have with me today Mark Kohorst who's come from Washington to speak in regards to Senate Bill 350 and also 93. I'd like to like speak to both of those briefly.

MARK KOHORST: Thank you, Carroll. Good afternoon, Senator -- Chairman Roy, Chairman Meyer, members of the committee. Thank you for your consideration and allowing me to testify today. I'm Mark Kohorst. I'm Senior Manager for Environment, Health and Safety at NEMA, National Electrical Manufacturers Association.

I'm here today reflecting the view of several members of our association, companies that at one time manufactured and sold mercury containing thermostats. I'm here to speak with regard to two pieces of legislation that you have under consideration aimed at addressing the problem of the management of these thermostats at the end of their life, Senate Bill 350 and Senate Bill 93. Our

association opposes Senate Bill 93 and we speak in favor of and would like to see enacted Senate Bill 350.

NEMA members long ago began to address this problem of mercury switch thermostats. In 1998 three members of our association Honeywell, which has a large facility in North Branford, Connecticut, GE and White Rodgers founded a nonprofit recycling corporation that would provide a nationwide collection system for these thermostats. It's called the TRC, the Thermostat Recycling Corporation.

It now has 31 corporate members and it's recycled more than 1.37 million mercury thermostats which has therefore diverted roughly 6.3 tons of mercury from the waste stream. It work -- operates very simply through reverse distribution, mainly through heating ventilation and air conditioning wholesalers. Thermostats come back by way mostly of contractors who take them off the wall. Manufacturers -- the industry pays virtually all the expenses. It is more -- it is for all intents and purposes a free program.

We work very hard at building awareness of this program through the industry. We have formal relationships with groups such as Hardy, that's the association representing refrigeration distributors, ACCA, which is contractors, and OESP which is service managers. In Connecticut the program's been running since 2000. We've averaged approximately 1,800 thermostats per year. A total of almost 13,000 since the program began operation and we've kept about 117 pounds of mercury out of the State's waste stream. We agree and believe that these numbers are too low and can be effectively increased.

We believe that Senate Bill 350 is the better way to do this. It contains all the elements that we think are necessary and it -- what we oppose and do not believe is a necessary feature is the primary element of the other bill, Senate Bill 93 which is a financial incentive or a bounty. The statistics are very clear from our experience and from experience of other states that the bounty is an ineffective way to affect collections.

I have data on a number of states that have mandatory programs, they consistently outperform the two states that have bounties in place. So we have seen that financial incentives are unnecessary. They're overly expensive and complex and they lead to manipulation and abuse. So I would conclude by saying that S.B. 350 contains what we believe is the affective model for increasing collections. We are happy to support its passage. We -- I would -- I would say that the one element that the State does not have in place and which needs to be priority one to address this problem and that is a statewide ban on the disposal of mercury thermostats.

This is one of the few states that addresses this issue that does not have such a ban in place. We fully support that. We believe contractors should be required by law to -- to manage these thermostats properly and dispose of them properly. We provide the program for them to do so. And right now however it's perfectly legal to throw a mercury thermostat in the trash.

Our bill contains a very firm disposal ban. And we believe that is one of the principal elements that needs to be enacted here in Connecticut. That's -- that concludes my

testimony. I'm happy to answer any questions you have.

REP. ROY: Thank you. Senator Meyer.

SENATOR MEYER: Thank you. I -- you know the committee -- the environment committee put up two bills and Senate Bill 93 was at the request of an organization in Connecticut called Coalition for Self and Healthy Products. And you have a concern with that because of the bounty concept in it. There is -- there is a fee concept though in the bill that you do support. Isn't there? I'm looking at -- I'm looking at -- oh I see where the line is.

MARK KOHORST: Are you talking about the 75 dollar-

SENATOR MEYER: I'm looking at the 75 dollar fee. A onetime program administration fee of 75 dollars. So there is a -- there is a charge associated with the bill you support as well.

MARK KOHORST: Well, Senator Meyer, thank you for bringing that up. Two things about that, number one, that's a typo. It should say not to exceed 75 dollars. And we would hopefully wish to amend that and secondly that -- what that refers to is a onetime fee paid for the collection container by any site that chooses to join our program. Rather than give the bins away for free we believe that it's important to establish some element of ownership so we charge a nominal 25 dollar fee currently -- 25 dollars to each site that collects thermostats and wishes to have a bin. That's one time.

Once they have it, it's continually recycled back to them once -- once it's filled with thermostats. So that should say no -- not to

exceed 75. Right now it's at 25. I don't know when it will be raised next but that's the only fee associated with the program.

REP. ROY: Thank you. Representative Chapin.

REP. CHAPIN: Thank you, Mr. Chairman. I think I heard you say that TRC operates through the wholesalers. Is that correct?

MARK KOHORST: Primarily. Yes, sir.

REP. CHAPIN: And can you tell me what percentage of thermostats are sold in Connecticut through retailers?

MARK KOHORST: I can't tell you -- I can't tell you in Connecticut. I'd be happy to find out what I can. I know that typically the numbers that we generally use are in the range of 85 to 90 percent thermostats. Residential thermostats are installed by contractors. In the retail community we have found both through sales data and returns data, it's pretty small player.

REP. CHAPIN: I'm not aware of anything that prohibits me as a homeowner from changing out -- any building code or anything that prohibits me from changing that out-

MARK KOHORST: Absolutely not.

REP. CHAPIN: So I'd be surprised if that number wasn't higher but I was wondering if TRC would consider placing -- or offering to place these bins at retail locations as well.

MARK KOHORST: It's part of our bill. We currently do.

REP. CHAPIN: Thank you. Thank you, Mr. Chair.

REP. ROY: Thank you. Any other questions or comments? Seeing none, thank you very much.

MARK KOHORST: Thank you.

REP. ROY: Marty Mador followed by Susan Eastwood.

MARTIN MADOR: Afternoon members of the committee. I'm Martin Mador, I'm the Legislative Chair for the Connecticut Sierra Club. It's my fortunate privilege to be able to take a romp through eight of the bills on your agenda in the next three minutes so I will do my best, starting with two mercury bills. We like 93. We think it's an appropriate bill.

HB5121
HB5492
SB348
SB347
HB5410

We have very little confidence that a program that does not -- that does not have some sort of financial incentive to get people to do this especially residential owners who are going to swap out these thermostats themselves. We don't think this is going to work without a financial incentive. We think it's necessary. We support 93. We do not support 350.

We think 93 is going to be more effective and I assume you understand the issue here that the stream hazards represented by exposure to mercury. This is important. We've -- we've been doing products stewardship, extended producer responsibility on a number of issues. We've done this ewaste previously. We did it for paint last year. We're doing it for mattresses this year. Next year we might do it for carpets.

The mercury take back is another example of this, of making sure that there's responsibility for postconsumer disposal in appropriate of products which have

implications for our lives. Now 5121, on the pesticide bill, we believe it's in the public interests to have governments at every level restricting the applications of pesticides. These are chemicals which were designed to kill living things.

We need to reduce our exposure to pesticides in every possible way we can. Yes it would be nice if we had a very restrictive statewide program. We don't -- the DEP has not been very strong on pesticides. We think it's a disservice to the State at this point in time to simply leave it up to the DEP so we would like to see the towns able to go further if they so wish to do it. It's very appropriate.

We do not agree with the testimony of Deputy Commissioner McCleary who we really like and respect that we should just leave it up to the DEP because they have not been strong enough on this particular issue. Storm water, we like the idea of -- of municipal storm water utilities that will provide for funding through property tax assessments and bonding. I would suggest we need to do things on a regional scale to the extent we can. Towns are now authorized to do jointly whatever they would do singularly.

They're already authorized to do that. I'd like to see added to this language implicitly saying that multi town storm water authorities are appropriate and can be encouraged. Three forty eight, water conservation, we like the bill a lot. We think this is a good way to get to getting the water companies to have a rate structure which is going to finally encourage conservation. With the storm water -- with the -- with the new stream flow regulations we now recognize the river itself as a consumer of water so we need to be very

and argue that we should raise the cost of something simply because it's a good idea to raise the cost of something. I've got a household to run as well as everybody else.

I'm well aware of the straits that we're in but we have a finite resource where there -- you're pretty much guaranteed there's not enough for everybody to use in every circumstance they want. You have to find a way to do a good allocation of that. Maybe there are other ways to do it.

You know we'll see what PURA comes up with here but I do not deny that people -- especially people who use a vast amount of water would be encouraged to reduce that somewhat if the water was somewhat more expensive.

REP. ROY: Any other questions or comments from members of the committee? Seeing none, thank you, Marty.

MARTIN MADOR: Thank you.

REP. ROY: Susan Eastwood followed by Khadija Abdul Solam.

SUSAN EASTWOOD: Good afternoon, Senator Meyer, Representative Roy and honorable members of the environment committee. It's my pleasure to speak with you this afternoon about S.B. 93 on behalf of Clean Water Action and the Coalition for a Safe and Healthy Connecticut. My name is Susan Eastwood and I'm a resident of Ashford, Connecticut.

We strongly support S.B. 93 and we also oppose S.B. 350 because we feel the bill is much too weak to be successful at collecting an increasing number of mercury thermostats as

the window closes on taking those thermostats out of the waste stream. Connecticut has been a national leader in environmental health and consumer protection for many years.

We're very proud of that here I know. The landmark mercury education and reduction act passed in 2002 banned the sale of many mercury products including reducing the amount of this neurotoxin that will be incinerated and emitted -- emitted into our environment if we don't recycle those thermostats. It is -- actually those thermostats contain about ten percent of the mercury that is stored in products in our country.

Thousands of tons -- hundreds of tons, thousands and thousands of pounds of mercury are in the thermostats in our country. The General Assembly found in the mercury reduction act that mercury is a persistent and toxic pollutant that bio cumulates in the environment and in order to create and maintain a healthful environment and protect public health virtual elimination -- virtual elimination of discharge of anthropogenic mercury should be pursued.

So S.B. 93 will strengthen our collection efforts considerably and it's based on proven models not only from Maine and Vermont where they've passed the legislation but also several pilot products -- projects which are detailed extensively in my testimony and in supporting documentation that I have submitted.

So this bill includes the financial bounty of a minimum of five dollars for the return of a thermostat but also includes public education and outreach, provision of containers to thermostat wholesalers which is the same as

now, although we would recommend only a 25 dollar fee if you're going to have a fee. We would prefer not to have one -- the bounty, as well as setting performance goals and reporting requirements which are not in the other bill.

This bill similar to this passed in Maine which increased the recycling rate by ten -- a factor of ten in Maine. Now I just wanted to look a little bit at the numbers that we've just heard. It's true that -- our numbers agree that we've collected -- oh, well -- well anyway, our numbers do agree that we've collected 1,800 -- 18,000 -- 1,800 a year. That number's been flat since 2008. And in Maine they collect more and more all the time but the last -- last year they collected 6,616.

So Connecticut has a population of two and a half times that of Maine. So if you do the numbers there and you look at it, why can't we be collecting at the same rate they are? We would be collecting 18,000 thermostats a year where they've only collected 13,000 with the TRC program in 12 years since 2000.

So we really have a long way to go. Maine's rate is ten times what ours is. So I would strongly recommend that we -- we look at that stronger bill really seriously. There may be some amendments but they're detailed in here as well.

REP. ROY: Thank you, Susan.

SUSAN EASTWOOD: Sure.

REP. ROY: Senator Meyer.

SENATOR MEYER: Susan, the -- the bill seems to

provide that, -- 93 seems to provide that if you return the mercury thermostat to a -- to a thermostat wholesaler that the five dollar fee will be paid by that wholesaler?

SUSAN EASTWOOD: There -- well it provides that there will be a program put in place. The way that they do -- they have different ways of doing it in Vermont and Maine a little bit. I spoke with people that run the program in Maine, they recommended that you could also have retailers volunteer to do it and many of them have been very happy to do it and they give a five dollar cash incentive right when they come in the store on anything that they buy in the store.

And that brings in customers and they've been very successful. And the smaller hardware stores really like that way of doing it. And I would think the manufacturers would like that because they wouldn't have the coupon, rebate kind of thing to have to administer.

SENATOR MEYER: Okay. The bill though doesn't say that. The bill says it can be in the form of cash or a coupon.

SUSAN EASTWOOD: It does. It leaves that open.

SENATOR MEYER: Okay. And who's going to pay -- pay the cash?

SUSAN EASTWOOD: That would be the -- the manufacturers of the original product.

SENATOR MEYER: So if you -- if you return a thermostat to a wholesaler or to a collection point is that set up in this bill, the wholesaler or the collection point will collect the -- the thermostat and then apply it to the manufacturer for the five dollars

you're going to pay out?

SUSAN EASTWOOD: Yeah. The way -- the way it works in Vermont which was the model for our bill there's -- they take a form and they put a number on the thermostats that's returned at the wholesalers, send them in to the thermostat recycling appropriations, takes them to recycle, they have the number on record and then the contractor has to send in a form. It's like a rebate form and the numbers have to agree so they can confirm that they did turn that thermostat in so that prevents fraud in the program.

SENATOR MEYER: Okay. But the ultimate payer is the manufacturer?

SUSAN EASTWOOD: Correct.

SENATOR MEYER: Okay. Last year we had a bill that had this kind of a bounty in it that didn't go arguably because of this fee. And so we have an alternative bill today on the calendar, 350 and what are your objections to Senate Bill 350?

SUSAN EASTWOOD: Well it doesn't really do much but codify the existing program which is a voluntary program. And if you look at the tables in my testimony there's one where I actually went on the NEMA website and I -- I found all of the wholesalers that have joined this voluntary program and paid the fee for the collection bin and participate. There are 14 listed in Connecticut in ten towns and they're all along from Stamford to Hartford corridor except for one in New London. So it's really only 14 wholesalers that serve as collection points where contractors can bring thermostats back. And about 75 percent they estimate are changed out

by contractors.

SENATOR MEYER: Actually I'm looking at lines 33 and following of Senate Bill 350 and it -- it appears to create a system a great deal like the system that's proposed in Senate Bill 93. It's-

SUSAN EASTWOOD: There are similarities. Yes.

SENATOR MEYER: It says that each manufacturer who sells mercury thermostats will establish a mercury thermostat collection and recycling program and make a collection container available to any wholesaler, retailer and so forth. So it looks to me as though it has some of the same -- both bills have some of the same system of setting -- setting up a collection system.

SUSAN EASTWOOD: I think that's true. I think that's correct.

SENATOR MEYER: And the question is why is the fee necessary in Senate Bill 93?

SUSAN EASTWOOD: The bounty.

SENATOR MEYER: The bounty.

SUSAN EASTWOOD: Well if -- if you look at it -- well I mean I'm not saying you wouldn't collect more thermostats if you put in a more robust, mandated all the wholesalers to have collection bins where now they only have them in a few, and did a lot of outreach but this program has currently -- it's been in place for 12 years.

There's been very little outreach and the collection numbers have been flat the last 12 years whereas programs that put it in with the

five dollar bounty have been proven to, you know, sky rocket their collection rates.

SENATOR MEYER: Good. Got it. Thank you.

SUSAN EASTWOOD: Okay.

REP. ROY: Thank you. Any other questions?
Representative Larry Miller.

REP. L. MILLER: Thank you, Mr. Chairman. And good afternoon. You mentioned something about ten percent -- I understand that a mercury thermostat might have three ounces of mercury in there.

SUSAN EASTWOOD: Three to five.

REP. L. MILLER: Three to five? And that's a very small -- if you put that in a tablespoon or a teaspoon it barely fills-

SUSAN EASTWOOD: Grams -- grams. I'm sorry.
Grams. Thank you.

REP. L. MILLER: And it would barely show in the spoon.

SUSAN EASTWOOD: It's highly neurotoxic.

REP. L. MILLER: I'm not saying that. I'm just saying that the amount that we're talking about. And you talked about Maine and extrapolated what Connecticut should be returning in thermostats. How many thermostats have been collected by these wholesale houses that have bins available? Do you have any idea how many have been turned in?

SUSAN EASTWOOD: In -- in Connecticut?

REP. L. MILLER: Yeah.

SUSAN EASTWOOD: I believe he -- I think Mr. Kohorst just said that there were 13,000 since 2000.

REP. L. MILLER: Turned in?

SUSAN MILLER: Turned in. Yes. Which -- which was equivalent to 117 pounds of mercury out of the waste stream which is good although the Product Stewardship Institute fact sheet which I submitted, they calculate that we are losing 300 pounds a year out of mercury thermostats in Connecticut that are not being recycled in one year as opposed to 12.

REP. L. MILLER: But that's a guesstimate right?

SUSAN EASTWOOD: It's not a guesstimate. It's based on -- a lot of it is based on TRC's numbers as well and other studies that I submitted.

REP. L. MILLER: But still I assume that that's a guesstimate. You know you can say what you want about-

SUSAN EASTWOOD: I would say it's an educated guesstimate.

REP. L. MILLER: -- but that's to me, is a guesstimate because you know if they miscount how many thermostats are turned in to say Sid Harvey's in Bridgeport. You know or Stratford or Granger's in Stratford or any other wholesale house because it's not only -- there's some plumbing operations that take thermostats in as well.

So I don't know if all those are included but, you know, most people know there's mercury in

thermostats and so that's over 11,000 pounds of mercury.

And I realize that each mercury thermostat only contains about, you know, three to five grams of mercury but it only takes one gram of mercury to contaminate a 20 acre lake making the fish totally inedible and unsafe to eat. So even though it's a small amount of mercury per thermostat it actually has a very devastating effect. Mercury's been tied to neurotoxin -- neurological diseases. It's been tied to birth defects.

It's been tied to cancer. It's been tied to asthma when it's incinerated in the air. So it's obviously highly, highly toxic. And I think the answer -- question here is how attractive do we want to make this -- this mercury reclamation program. I -- that's why I -- and you're right, Senator Meyer, the bills have a lot of similarities. The big difference is the financial incentive. And it's attractive because money's very popular.

I mean people like money. And I think that -- I think while people do want to do the right thing and get the mercury thermostats out of their homes I think if you add a five dollar incentive to it they're just that much more likely. And I think that we can -- we can do better than even, you know, the nice gentleman from NEMA who came down, even he said his program's numbers were in his own words far too low.

You know so there's obviously room for improvement here and I think that Connecticut can do that. And so on behalf of the Interreligious Eco-Justice Network we would like to urge you to strongly support Senate Bill 93.

a thermostat and I think they try to do the right thing and to bring -- to dispose of it properly you know. So, again I applaud your efforts but, you know I think we -- people are aware of it and they're trying to do the right thing and hopefully that we will get rid of all the mercury thermostats.

SUSAN EASTWOOD: Okay.

REP. L. MILLER: Thank you.

SUSAN EASTWOOD: Thank you.

REP. ROY: Thank you, sir. Any other questions or comments for Susan? We're all set. Thank you.

SUSAN EASTWOOD: Okay. Thank you very much.

REP. ROY: Khadija Abdul Solam followed by Terry Eickle. Abdul or Khadija? Okay, Terry Eickle -- Eickle -- Eickle.

TERRY EICKLE: Eickle.

REP. ROY: Eickle. Thank you.

TERRY EICKLE: You got it right. Good afternoon, Senator Meyer, Representative Roy, members of the environment committee. Thank you for hearing my testimony. I am speaking on behalf of the Interreligious Eco-Justice Network. We are a faith based environmental group working with religious communities on environmental stewardship. I'd like to testify in support of Senate Bill 93 and in opposition to Senate Bill 350. And I have, you know, a list of -- I have my testimony but I wanted to say that, you know, we have still estimates of 1.7 million homes that are still currently having -- they still currently have mercury

REP. ROY: Thank you. Any comments or questions?
Senator Meyer.

SENATOR MEYER: Thanks for your advocacy. Are the
-- this is a terribly dumb question to ask.
Can you buy a thermostat today without
mercury?

TERRY EICKLE: Oh, yes.

SENATOR MEYER: Yeah.

TERRY EICKLE: Programmable thermostat.

SENATOR MEYER: Right.

TERRY EICKLE: Yeah. I mean we banned the sale of
mercury thermostats here in Connecticut,
correct? Yeah, in 2004.

SENATOR MEYER: Oh we did? Okay.

TERRY EICKLE: So, yes. The issue is the ones that
are still on the walls, you know that -- you
know when the houses were built years and
years ago and then -- and then people, you
know, they -- they're either getting renovated
or the builders are going through and, you
know, who knows what happens to those mercury
thermostats?

SENATOR MEYER: Yeah. I've got a thermostat
outside our bedroom window and it's got --
it's got a tube on it and at the bottom of the
tube is -- is a red liquid. Is that mercury?
It's just water. Yeah. Okay.

TERRY EICKLE: I'd be hesitant to, you know, make a
guess but okay.

SENATOR MEYER: Thank you, Representative Miller.

Thank you. I'll bring it into you and give it to you.

TERRY EICKLE: Totally. Don't throw it away.

SENATOR MEYER: Thanks.

REP. ROY: Thank you. Any other questions or comments from members of the committee? Thank you.

TERRY EICKLE: Thank you.

REP. ROY: Anne Hulick followed by Mary Jane Williams.

ANNE HULICK: Good afternoon, Senator Meyer, Representative Roy and honorable members of the environment committee. I am Anne Hulick. I am the Coordinator of the Coalition for Safe and Healthy Connecticut. I'm also a nurse with many years of experience in not only the clinical setting but in environmental health.

The Coalition strongly supports Senate Bill 93, AN ACT CONCERNING A MERCURY THERMOSTAT COLLECTION AND FINANCIAL INCENTIVE PROGRAM and we are in opposition of Senate Bill 350. First the program outlined in Senate Bill 93 has worked in other states to reduce exposure to mercury from thermostats and we believe that the proposed industry bill does not go far enough and will not be effective.

You all know as well as I do that mercury is highly -- a highly toxic metal and a neurotoxin. There have been an overwhelming amount of peer reviewed scientific studies documenting the hazards of heavy metals like mercury. Evidence suggests that exposure to mercury and other metals have a profound effect on the developing brain at levels

previously thought to be safe.

This is particularly worrisome for pregnant mothers who may be eating fish that are contaminated from even minute amounts of mercury. The proposed industry bill, Senate Bill 350 does not go far enough and we believe will not be effective for the following reasons; first Senate Bill 350 will require a recycling program and distribution of collection containers to participating collection sites. As outlined previously there are only about 14 collection sites in the -- in the State of Connecticut.

Unfortunately, the second reason that this bill will not be affective is that the educational and outreach efforts in the period of 2013 through 2016 only address again those participating collecting sites. It does not require nor does it have any incentive or provisions to increase the number of participating collection sites across the State of Connecticut.

Third, Senate Bill 350 deems that anyone that participates as collection site is automatically in compliance if they collect thermostats and post signs. I can finish up. Lastly, Senate Bill 350 shifts the burden of reporting and educating to the Department of Energy and Environmental Protection. Recommendations to improve the recycling rates or effectiveness of the program will not be required until 2017. There is no reason to wait another five years to implement a more effective program. Therefore we strongly support and urge your support of Senate Bill 93. Thank you.

REP. ROY: Thank you, Anne. Any questions or comments? Representative Larry Miller.

REP. L. MILLER: Thank you, Mr. Chair. Does your organization notify for instance oil burning companies, the gas company, the electric companies, do you send them any information about the fact that these thermostats have mercury in them and it's dangerous and they should, you know, collect them or -- or bring them to a collection post?

ANNE HULICK: Do we notify who? I'm sorry. I didn't-

REP. L. MILLER: I'm wondering if your -- if your organization sends out letters and notification to the oil companies, the gas companies, whoever -- you know, wherever they -- works with thermostats. Do you people notify them to -- that they should-

ANNE HULICK: No.

REP. L. MILLER: -- dispose of them in a proper manner in any way.

ANNE HULICK: No we do not.

REP. L. MILLER: No program like that?

ANNE HULICK: No.

REP. L. MILLER: Okay. Thank you.

REP. ROY: Senator Meyer.

SENATOR MEYER: Anne, I'm -- I've been trying to understand and I should have asked the prior witness the question why the industry is opposed to the bill that you support, Senate Bill 93. And I -- I assume just using some common sense they're opposed to it because it -- they're going to have to pay -- the

manufacturers are going to have to pay five bucks for the return of each one of these thermostats and they will not be able to get that back because in effect, you know, they might have added that five dollar -- five dollar refund to the cost of the thermostat when they were selling it if they knew that there was going to be this bill.

But -- but they didn't know there was going to be this bill and so after -- after the fact they're taking a haircut of a five dollars per thermostat. Does that seem likely to be the reason?

ANNE HULICK: I would believe so. You know, and we do recognize that this notion of product stewardship and manufacturers taking on responsibility, it is important and we recognize however that in this particular instance these were items that were made and sold possibly many, many years ago.

However we also look at the health impacts and the environmental impacts of release of this neurotoxin into our environment and the associated healthcare costs. So it needs to be-

SENATOR MEYER: Okay. The industry appears to agree with you on that. But I'm asking you why is the industry so opposed to Senate Bill 93 and they -- they've been very direct with the -- with the committee -- the environment committee concerning their favoring no -- no bounty and a no fee, a no refund bill. And -- and the only way that I can figure out and I will talk to them and their distinguished advocates who are actually in this room-

ANNE HULICK: Yes.

SENATOR MEYER: -- about that but it would seem to me that it's -- they feel there's a certain unfairness to -- to the manufacturer having to pay out a five dollar amount when it wasn't able to attach that to the cost when it -- when the thermostat was sold.

ANNE HULICK: Right. I -- we understand that. I think in the proposed bill, Senate Bill 350 even without the -- you know, even taking the five dollar bounty out of the equation, Senate Bill 350 as written does not do enough to require the increase in the number of collection sites.

It does not do enough to require education and outreach to more than the current participating collection sites and it extends the timeframe too long for which we can require an evaluation of the program and a determination by DEEP as to what are our recycling rates and have we improved to the level that we think we should be. There's no measurable goals or outcomes in Senate Bill 350 as currently proposed.

So as previous colleagues testified there's some good elements to that -- that bill but there's no -- it only is required of current participating collection sites as I read it and it doesn't do anything to set measurable goals for increasing our recycling rates.

SENATOR MEYER: Okay. We can see that on the face of both bills. But I think it would be very helpful to the committee if you and or Susan Eastwood would give us the figures of returns from other states where there has been a bounty to show -- to show that the financial incentive does work.

ANNE HULICK: Okay.

SENATOR MEYER: You know, give us those figures in writing to each member of the committee.

ANNE HULICK: Okay.

SENATOR MEYER: Because we're obviously all incentivized to try to stop this distribution of this toxin.

ANNE HULICK: Right. Thank you.

REP. ROY: Mary Jane Williams followed by Joyce Acebo Roguskas.

MARY JANE WILLIAMS: Good afternoon, Senator Meyers, Representative Roy and esteemed members of the environmental committee. I am Mary Jane Williams, current chairperson of government relations to the Connecticut Nurses Association and cochair of policy and advocacy for the Alliance for Nurses for Healthy Environments in the National Arena.

The purpose and the intent of this legislation is to address an issue of the potential environmental hazard related to the continued existence and usage in our State of mercury thermostats. My colleague before me mentioned they were-

REP. ROY: Excuse me, are you -- you're addressing Senate Bill 93?

MARY JANE WILLIAMS: I'm -- I am opposed -- I am in strong support of Senate Bill 93, AN ACT CONCERNING MERCURY THERMOSTAT COLLECTION AND FINANCIAL INCENTIVES. A single gram of mercury is enough to contaminate all the fish in a 20 acre lake. I would bet that all of you enjoy swordfish. I no longer enjoy swordfish -- fresh swordfish because it is

loaded with mercury and the advisement -- that we do not eat swordfish. It is -- it is making the food that we eat unsafe, particularly unsafe for mothers.

Scientists in the Environmental Protection Agency estimate that one in six women of childbearing age in the United States have unsafe mercury levels in their body. That's because all of our fish products are contaminated. This translates into 630,000 babies born at risk for mercury exposure annually. We urge you to support Raised Bill number 93.

Adopting strong State laws with financial incentives and performance incentives for recycling mercury thermostat is the most important change needed to drastically improve and prevent mercury pollution. Mercury containing thermostats are a significant source of preventable mercury pollution. Support of this legislation has huge implications related to the potential health of the citizens of Connecticut and the most vulnerable populations, children who pay the ultimate price for ineffective policy through lifelong preventable disease at great cost to the State of Connecticut.

We urge your strong support of this incentive program to ensure the health of the public that we all serve. Thank you.

REP. ROY: Thank you. Any questions or comments?
Senator Meyer?

SENATOR MEYER: Did you look at Senate Bill --
Senate Bill 350-

MARY JANE WILLIAMS: Yes I did.

190

March 16, 2012

lxe/law/rgd/gbr

ENVIRONMENT COMMITTEE

10:00 A.M.

SENATOR MEYER: -- the alternative bill?

MARY JANE WILLIAMS: Yes.

SENATOR MEYER: Do you have any comments, remarks about that?

MARY JANE WILLIAMS: I think that if we don't incentivize people they're not going to return them. We talk about the manufacturing industry losing money but we have a terrible economy right now and if we want to motivate people five dollars means a lot to people. I think it would be a way for us to get a major source of contamination out of our State. And I think ultimately and it's very difficult to do this -- ultimately we are going to keep people well by prevention.

And if we keep people well it ultimately costs the State less money. So I think that you know we have to look at -- and this doesn't happen over -- it happens in public health. We call it upstream. It takes 30 years for these things to happen and so we need to act now so that we will be able to afford healthcare for the people of Connecticut as we move forward in the next few years.

REP. ROY: Thank you. Any other questions or comments from members of the committee? Seeing none, thank you very much.

MARY JANE WILLIAMS: Thank you.

REP. ROY: Joyce -- Joyce Acebo Roguskas followed by Louis Birch.

JOYCE ACEBO ROGUSKAS: Good afternoon and thank you, Senator Meyer, Representative Roy, and honorable members of the environment committee for this opportunity this afternoon. You're

SB93

anybody -- I'd be surprised and confused if the industry would not want that because they're safe.

And as far as you said, well, let some organic pesticides that are dangerous, I would say if that's the case don't use them. They shouldn't be used either, you know, because we're interested in protecting children and child in utero and human health.

SENATOR MEYER: And so the second part of my question is, given the definition you've just given of pesticides and exempting micro-bio and biochemical pesticides --

JERRY SILBERT: Microbial, yeah.

SENATOR MEYER: Microbial, excuse me. Microbial and biochemical pesticides.

JERRY SILBERT: Right.

SENATOR MEYER: What are we exempting them from by making this change?

JERRY SILBERT: We're exempting them from the prohibition of using EPA-registered pesticides because they are EPA-registered pesticides.

SENATOR MEYER: Okay. Thank you.

REP. ROY: (Inaudible).

JERRY SILBERT: Thank you very much for this opportunity.

REP. ROY: Margaret Miner followed by Laura Reid.

MARGARET MINER: Good afternoon, Chairman, members of the committee. I'm Margaret Miner with Rivers Alliance of Connecticut, also -- well,

HB 5121 SB 348
SB 375 SB 93
SB 350 SB 347

with Rivers Alliance of Connecticut. We commented on a number of bills, pulled out the pesticide bill that's, to us, extremely important.

HB 5121

In rapid comment, we support the water conservation bill. We worked on it. We did address many of the questions that were raised. An example of where I think you get savings for consumers and for industry is regulation of peak rates. As with energy, a lot of your infrastructure, a lot of your investment goes to responding to a situation that may only exist a couple of weeks a year.

SB 348

On the idea that stream flow regulations required that we do this, they certainly were a contributor, but the underlying constraint on supply in the water business is that Connecticut has a uniquely high standard for potable water. So our state cannot get water from sources that other states can and that means finding new supply is difficult. Stream flow regulations did add another element there, but I think it's less of a concern that our high potable water standard, which I agreed to.

Training in the wetlands commissions, I -- we don't support the Coastal Management Act. You know that our position is until the State has some kind of policy for coastal areas, let's not change too many things.

SB 375

The -- you know, we support reform of mercury disposal. The open space, I particularly want to mention it's a rather broad bill, some addressing issues we've had for a while, the registry.

SB 93 SB 350SB 347

The other parts looking at policy issues, as you know, our state programs for conserved



March 15, 2012

Scott Cassel, Executive
Director/Founder

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Peter Pettit
*NYS Department of
Environmental Conservation*

Senator Edward Meyer
Representative Richard Roy
Environment Committee
Room 3200, Legislative Office Building
Hartford, CT 06106

SB 350

**RE: Support for SB. 93, An Act Concerning A Mercury Thermostat
Collection and Financial Incentive Program**

Dear Senator Meyer and Representative Roy:

The Product Stewardships Institute, Inc (PSI) strongly supports SB.93. This legislation will better protect the people and environment of Connecticut from mercury pollution caused by the mishandling of old mercury thermostats.

The Product Stewardship Institute, Inc. (PSI) is a national non-profit environmental institute with membership from 47 state governments, 200 local governments, and over 75 corporate, organizational, academic, and non-U S. government partners. The State of Connecticut has been a PSI member since 2002.

SB.93 places the primary responsibility for mercury thermostat collection where it belongs - on thermostat manufacturers. It establishes a manufacturer-financed system for education, collection, and recycling of these mercury products. These provisions are consistent with model mercury thermostat legislation developed by PSI in 2007 and now signed into law in nine states. Furthermore, SB. 93 will substantially strengthen the current voluntary system for mercury thermostat collection. That system, in place since 1998, is not working. As a consequence, more than 300 pounds of mercury is entering the waste stream each year in Connecticut.

Two elements of SB 93 are particularly important: (1) the establishment of clear, mandatory collection targets and (2) the inclusion of a financial incentive which has proven in other states to be the most effective way to increase collections.

While we are fully supportive of the intent and architecture of SB. 93 we suggest the following amendments:

Product Stewardship Institute, Inc • 29 Stanhope Street • 3rd Floor • Boston, MA 02116
Telephone: (617) 236-4855 • Fax (617) 236-4766 • www.productstewardship.us

♻️ Non-chlorine Bleached / 100% Post-Consumer Recycled Paper / Soy Ink

The Product Stewardship Institute is an equal opportunity provider and employer.

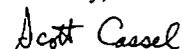
- (1) Alter section 1. (a)(1) to include manufacturers that *have sold* mercury thermostats in the past. Connecticut law prohibits the sale of new mercury thermostats, therefore the inclusion of companies that previously sold thermostats is crucial.
- (2) Explicitly place responsibility for public education and outreach should rest with the manufacturers, wholesalers, and retailers. It is not feasible to expect the Department of Energy and Environmental Protection to be able to assume this role, without requiring additional resources to effectively implement this provision

We also recognize that a second bill on this same subject is being considered by this committee as well, An Act Requiring the Establishment of Manufacturer Mercury Thermostat Collection And Recycling Programs (SB. 350). Our organization is concerned, however, that this bill would not go far enough to increase participation in the existing thermostat recycling program. With the exception of new reporting requirements, SB. 350 would simply formalize activities already being undertaken by the Thermostat Recycling Corporation. Unfortunately, these activities have not been sufficient to divert mercury from the waste stream. It is very unlikely that more mercury thermostats will be collected in Connecticut as a result of new legislation unless it includes a meaningful collection requirement and/or institutes a financial incentive to encourage the use of the program. SB. 93 would do both.

PSI strongly urges you to support SB. 93, an An Act Concerning a Mercury Thermostat Collection and Financial Incentive Program.

We would be very glad to provide additional information based on our experience developing thermostat recycling legislation and our network of state agencies who have first-hand knowledge of the implementation of thermostat recycling laws. If you have questions, please contact Sierra Fletcher, Director of Policy and Programs, at (617) 236-4886 or sierra@productstewardship.us.

Sincerely,



Scott Cassel
Chief Executive Officer and Founder

'Extrapolating to a per capita estimation of the number of thermostats available for collection from the study funded by the Thermostat Recycling Corporation, Skumatz, Ph.D., Lisa A. *Mercury-Containing Thermostats. Estimating Inventory and Flow from Existing Residential & Commercial Buildings A Study to Meet Requirements for State of California Thermostat Recycling Legislation*. Rep. Skumatz Economic Research Associates, Inc. (SERA), 28 Dec. 2009. Web.
<http://www.dtsc.ca.gov/HazardousWaste/upload/TRCThermostat-Report-12_09.pdf>.



Connecticut Coalition for Environmental Justice

P O Box 2022, Hartford, Connecticut 06145-2022 Phone (860) 548-1133 Fax (860) 548-9197
ccej@environmental-justice.org www.environmental-justice.org

**Testimony of Khadija Abdul-Salaam
 Connecticut Coalition for Environmental Justice
 Before the Environment Committee
 Public Hearing March 16th, 2012**

SB 350

Re: Testimony in Support of SB 93 AN ACT CONCERNING A MERCURY THERMOSTAT COLLECTION AND FINANCIAL INCENTIVE PROGRAM.

Good Afternoon Senator Meyer , Representative Roy and members of the Environment Committee.

My name is Khadija Abdul-Salaam and I am a member of Connecticut Coalition for Environmental Justice. I am here in support of SB 93 - AN ACT CONCERNING A MERCURY THERMOSTAT COLLECTION AND FINANCIAL INCENTIVE PROGRAM.

Studies have shown that exposure to mercury at even low levels causes damage to children and fetuses, yet, mercury thermostats in Connecticut homes contain thousands of pounds of mercury. We only recycle 5% of end of use mercury thermostats. The rest end up in landfills and incinerators where they are often burned, releasing mercury into the atmosphere.

When trash is burned at the Trash to Energy Plant in Hartford, low-income families are exposed to mercury in the air. When the mercury falls into the lakes and streams, fish ingest it, and this has led to multiple warnings for pregnant women and children to avoid eating fish; a single gram of mercury is enough to contaminate all the fish in a 20 acre lake.

Manufacturers need to step up and dramatically increase their collection rates of mercury thermostats, so that mercury is recycled. Low-income Environmental Justice Communities and the public as a whole need to be protected from toxic mercury exposures. Senate Bill 93 would require manufacturers to finance a collection and recycling program and pay a \$5 incentive for each mercury thermostat returned for proper recycling. Vermont has seen a 45% increase in mercury thermostat collection after the first two years of the 5 dollar cash incentive program. And in Maine collection rates have tripled since the bounty was instituted. Our own voluntary program is currently under 5% annually and is not effective in protecting us against mercury contamination.

Let's pass SB 93 this year and protect our children now.

Teresa Eickel
478 Prospect Ave, Apt. 5
Hartford, CT 06105

SB 93

Good afternoon and thank you for hearing my testimony today. I speak on behalf of the Interreligious Eco-Justice Network, a faith based environmental group representing hundreds of churches, synagogues, and mosques. I would like to testify in support of SB 93, a bill that would require manufacturers to take responsibility for reclaiming mercury thermometers. The bill would also require manufacturers to provide an incentive for turning in the thermometers. I am opposed to SB 350, a bill supported by the industry and one that has no incentive, very few reporting requirements, and no performance goals. Clearly, if we want to reduce mercury pollution in Connecticut, then we need SB 93.

Currently, thermometers are not being disposed of properly. As builders and developers tear down and renovate buildings, the old mercury thermometers come down off the walls, where they are promptly tossed in the trash. From there, they typically go to the incinerator, where they are burned, releasing mercury into the air, which then gets into our drinking water and our soil. CT homes have 1.7 million mercury thermostats still in use in homes – that's over 11,000 pounds of mercury. Mercury is highly toxic; it only takes 1 gram of mercury to contaminate all of the fish in a 20 acre lake. Mercury has been linked to cancer, asthma, and birth defects and, of course, children are the most susceptible to its damaging effects.

Connecticut has attempted voluntary programs in the past, but they have failed to reclaim many thermostats. In contrast, a program in ME, one that utilizes incentives and performance goals, has been much more successful. We need a state-mandated program – a program that requires the recycling of mercury thermostats, while also providing incentives and outlining goals in order to make this program successful.

I would like to state that this is not just a public health issue; it is a moral, spiritual, and ethical issue as well. As children of God, we need to remember that this planet is a gift and one that we should not take lightly. We are called to be stewards and to take care of creation. We are called to protect our brothers and sisters, those less fortunate, and to care for the sick and vulnerable. When we take active steps to reduce the toxins in our eco-system, then we are doing what is right for God's earth and all that live on it.

Please pass SB 93. Thank you for your time.



**Written Testimony of Anne Hulick, Coalition for a Safe and Healthy Connecticut,
Before the Connecticut General Assembly Environment Committee,
March 16, 2012**

Testimony in Support of:
**Senate Bill 93 AN ACT CONCERNING A MERCURY THERMOSTAT
COLLECTION AND FINANCIAL INCENTIVE PROGRAM**

Dear Senator Meyer, Representative Roy, and honorable members of the Environment Committee,

My name is Anne Hulick, RN, MS, JD and I am the Coordinator of the Coalition for a Safe and Healthy Connecticut (CSHC). I am also a nurse with many years of experience in environmental health. CSHC is a large coalition comprised of over fifty member organizations of health professionals, environmental justice advocates, labor groups, public health professionals, environmental experts, faith based groups, scientists and many individuals across Connecticut that are concerned about the growing body of research linking exposure to toxic chemicals with the rise in serious diseases.

The Coalition supports SB 93 An Act Concerning A Mercury Thermostat Collection and Financial Incentive Program. First, this program has worked in other states to reduce exposure to mercury from thermostats. Second, the proposed industry bill (SB 350) does not go far enough and will not be effective.

In 2002, Connecticut passed a comprehensive law which phased out the sale of many products that contain mercury. This was, in part, due to the significant amount of scientific research that showed the harmful effects of mercury exposure particularly to the pregnant women and children. Mercury is a highly toxic metal and a neurotoxin. There have been an overwhelming amount of peer-reviewed scientific studies documenting the hazards of mercury exposure. Evidence suggests that exposure to mercury, and other toxic metals, has a profound effect on the developing brain at levels previously thought to be safe. Exposure to mercury particularly during critical windows of development, such as when a first trimester pregnant mother eats fish, may affect the normal development of specific, sequential neurobiological processes.¹ In fact, the latest research suggests that exposure to industrial chemicals like mercury could be creating a “pandemic of subclinical neurotoxicity—harm to the brain and nervous system that is not linked to a specific diagnosis.”²

¹ Safer Chemicals Healthy Families, “The Health Case for Reforming the Toxic Substances Control Act” (Jan. 2010), p. 9.

² Id at 9

This is particularly worrisome when the U.S. Environmental Protection Agency estimates that one in six women of child bearing age have unsafe levels of mercury in their body. This translates to 630,000 babies born with unsafe exposure to mercury. Could exposure to harmful chemicals like mercury be the reason that neuro-developmental disorders are on the rise in the U.S? We may not know for sure but recent evidence of early exposures and the rising incidence of disease is clearly cause for concern. Learning and developmental disabilities are now estimated to affect approximately 1 in six children under the age of 18 in the U.S. Attention deficit hyperactivity disorder is conservatively estimated to affect 2 million children and autism-spectrum disorder has seen a ten-fold increase in just fifteen years! About 30% of this dramatic rise cannot be explained away by changes in diagnostic criteria.³

Proposed industry efforts to recycle thermostats containing mercury will not be effective. First, SB 350 will require a recycling program and distribution of collection containers to **participating** collection sites. Unfortunately, there are only a small handful of 'participating' sites available. Second, the educational and outreach efforts in the period of 2013-2016 only address "participating" collection sites. There is no incentive or provisions to increase the number of collection sites for mercury thermostats and no requirement that the current participating collection sites distribute any educational material to customers. Third, SB 350 deems that anyone that participates as a collection site is automatically in compliance if they collect thermostats and post signs. This seems hardly enough to increase the recycling rate of these thermostats. Lastly, SB 350 shifts the burden of reporting and educating to the Department of Energy and Environmental Protection. Recommendations to improve the recycling rates or effectiveness of the program will not be required until 2017. There is no reason to wait another five years to implement a more effective program. Therefore, we urge your support of SB 93.

Sincerely,

Anne Hulick

Coalition for a Safe and Healthy Connecticut
645 Farmington Avenue, 3rd floor
Hartford, CT 06105
860-232-6232

³ Id. at p.8



Connecticut Department of
**ENERGY &
ENVIRONMENTAL
PROTECTION**

**STATE OF CONNECTICUT
DEPARTMENT OF ENERGY AND ENVIRONMENTAL PROTECTION**

Public Hearing – March 16, 2012
Environment Committee

Testimony Submitted by Commissioner Daniel Esty

Raised Senate Bills No. 93- An Act Concerning a Mercury Thermostat Collection and Financial Incentive Program and No. 350 An Act Requiring the Establishment of Manufacturer Mercury Thermostat Collection and Recycling Programs

Thank you for the opportunity to present testimony regarding Raised Senate Bills No. 93, AN ACT CONCERNING A MERCURY THERMOSTAT COLLECTION AND FINANCIAL INCENTIVE PROGRAM and No 350 AN ACT REQUIRING THE ESTABLISHMENT OF MANUFACTURER MERCURY THERMOSTAT COLLECTION AND RECYCLING PROGRAMS. The Department of Energy and Environmental Protection (DEEP) welcomes the opportunity to offer the following testimony.

The Department of Energy and Environmental Protection (Department) supports the concept promoted in Raised Senate Bill No. 93, as an effective way to increase the recovery of mercury thermostats and removing toxic mercury from our waste facilities and ultimately our environment. This bill creates a producer responsibility program for the management of discarded mercury thermostats in Connecticut. Under this bill, thermostat manufacturers would take responsibility for managing their product by establishing a financial incentive for contractors and homeowners to return mercury thermostats. Conversely, the Department does not support Raised Senate Bill No. 350 because it does not improve upon the low recycling rates of the current manufacturer run voluntary program.

The Department of Health continues to issue a statewide fresh fish consumption advisory due to unsafe mercury levels. Mercury enters our environment through a variety of means, including devices such as thermostats being disposed of in municipal solid waste. While Connecticut was the first state in the country to prohibit the sale of new mercury thermostats in 2004, thousands of mercury thermostats are still in service. On average, each mercury thermostat contains about four grams of mercury.

The Department recognizes extended producer responsibility programs as an important strategy for managing Connecticut's solid waste going forward. The state's solid waste management plan, last amended December 2006, identifies product stewardship solutions as a means to help reduce the toxicity of our solid waste. Product stewardship programs acknowledge that consumers, government and manufacturers all play an important role in managing products at the end of their useful life. This

helps relieve the financial burden that currently falls upon municipal government which is tasked with managing household hazardous and solid waste.

Effective product stewardship programs limit the role of government. Raised Senate Bill No. 93, as proposed, requires the Department to play a significant role in the proposed product stewardship program. The Department is not in a position to expand our obligations without additional resources. We ask the legislature to be mindful that this bill not impose additional unfunded responsibilities on the Department. We are willing to work with the committee and stakeholders to address concerns associated with the proposed language.

In summary, the Department supports Raised Senate Bill No. 93 as an effective way to increase the recovery of mercury thermostats. The Department is willing to work with stakeholders, including industry, to plan the implementation of this program to ensure that it is run efficiently and with a limited government role.

Thank you for the opportunity to present the testimony on this proposal. If you should require any additional information, please contact the Department's legislative liaison, Robert LaFrance, at (860) 424-3401 or Robert.LaFrance@CT.gov.

**JOINT
STANDING
COMMITTEE
HEARINGS**

**ENVIRONMENT
PART 8
2413 – 2739**

2012



Rivers Alliance

of Connecticut

ENVIRONMENT COMMITTEE PUBLIC HEARING: MARCH 16, 2012

HB 5082 SB 375
SB 93 SB 350
SB 347 (HB 5413)

Dear Senator Meyer, Representative Roy, and Members of the Committee:

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Rivers Alliance of Connecticut is the statewide, non-profit coalition of river organizations, individuals, and businesses formed to protect and enhance Connecticut's waters by promoting sound water policies, uniting and strengthening the state's many river groups, and educating the public about the importance of water stewardship. Our 450 members include almost all of the state's river and watershed conservation groups, representing many thousand Connecticut residents.

We offer brief testimony on the following bills, in the order in which they are listed in the online agenda for today's public hearing

RB 348 AAC WATER CONSERVATION. Rivers Alliance has been interested in supporting a bill like this for more than ten years. We hope you will like it. Both water companies and environmental advocates participated in its development. Essentially, the bill encourages the de-coupling of water revenues from volumes sold. This is the same principle that has been applied in the energy sector. Efficiency and conservation can be costly to the utility. Water-saving appliances depress sales and revenue, then investment in infrastructure and maintenance is slowed; the resulting emergency repairs are expensive, staff is let go, water quality is at risk, and rates rise in crisis mode. The solution is a rate structure that rewards the consumer for thrift but provides a predictable revenue flow for the water company. Different utilities work in very different conditions, so the bill is designed to accommodate different needs. *Support.*

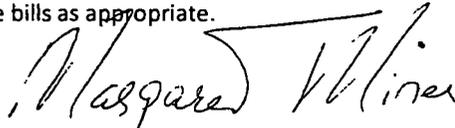
RB ³⁴⁴375 AAC TRAINING FOR INLAND WETLANDS AGENCY MEMBERS AND AGENTS. The Council on Environmental Quality (CEQ) developed this bill to upgrade the expertise of wetlands commissioners and agents. Present law requires almost no training for staff or members of a commission. CEQ research revealed that the better trained commissions more successfully protected wetlands. Previous efforts at legislation were more burdensome and costly than necessary, and also occasionally punitive. This bill has largely cured those problems. *Support.*

RB 376 AAC THE COASTAL MANAGEMENT ACT AND SHORELINE FLOOD AND EROSION CONTROL STRUCTURES. This is a complicated instrument for overriding shoreline zoning rules. We have opposed changes to regulatory authority until the state develops a broad policy for shoreline construction in an era of rising water. Note, the definition of "cost prohibitive" is pinned to the overall cost of a project. But this does not take into account the resources of the applicant (for whom nothing or everything may be too costly) or the importance of the requirement to human and environmental health. *Oppose.*

Notes on the concepts in other bills on the agenda.

- Leaking underground storage tanks are still causing extensive contamination of groundwater and soil. (5082 and 375)
- Mercury contamination affects all streams and fish in Connecticut. The less mercury left around the better. (93 and 350)
- Monitoring and protecting state open space, including water company lands, must improve if the state is to meet its policy goals and pledges to the public. (347)
- Invasive aquatic plants can be a nuisance, a health hazard, and can lead to the application of hundreds of pounds of aquatic pesticides over and over in the same area. (HB 5413)

Thank you for your attention. We would be happy to answer questions and to work on any of these bills as appropriate.


Margaret Miner,
Executive Director



**Environment Committee
Public Hearing
March 16, 2012**

Submitted by: Lynn Taborsak, Solid Waste Specialist
in support of

SB 350: An Act Requiring the Establishment of Manufacturer Mercury Thermostat Collection and Recycling Programs

The League of Women Voters of Connecticut is a non-partisan statewide organization comprised of over 1800 members and committed to effective public policy and the active involvement of citizens in their government. On behalf of the League, I would like to thank you for the opportunity to comment on this measure.

The League of Women Voters of Connecticut has consistently supported statewide recycling and environmentally sound waste disposal. We applaud the Environment Committee for providing strong leadership on efforts to reduce, reuse and recycle solid waste. Today you will hear testimony about the need to promote the collection and safe disposal of mercury thermostats that are used to control room temperature in residential, commercial and industrial buildings in Connecticut.

Mercury is highly toxic and although coal-fired power plants account for most mercury emissions, the improper disposal of mercury thermostats results in the release of about 9.6 tons of mercury in the U.S. Nine states have adopted collection and recycling programs like the one proposed in SB 350 to keep mercury out of the solid waste stream.

Mercury buried in a landfill can impact water supplies, streams and fish. Mercury in an incinerator can impact air quality. Mercury poisoning can cause tremors, insomnia, muscle atrophy, and migraine headaches. However if released into the environment, mercury can be much more dangerous and is linked to birth defects as well as impaired brain and nervous system development.

SB 350 is another example of good "Product Stewardship" where we ask the manufacturer to establish a program for the collection and safe disposal of a particular product. The major manufacturers of mercury thermostats already comply with the provisions of this bill in several other more populous states. In addition, the bill contains a provision to evaluate, revise and even repeal the program as manufacturers may develop other non-toxic alternatives to mercury.

This proposal will achieve a solid public policy objective: the removal of mercury from our solid waste stream. Please support SB 350.



National Electrical Manufacturers Association

1300 North 17th Street, Suite 1752

Rosslyn, VA 22209

703-841-3200

Fax 703-841-3300

**Testimony of the National Electrical Manufacturers Association
Before the Connecticut Joint Legislative Committee on the Environment**

**Re: SB 350/SB 93 – *Legislation Requiring Thermostat Manufacturers to
Implement a Program for the Return of Mercury Thermostats***

March 16, 2012

**POSITION: Support SB 350
Oppose SB 93**

Chairmen Meyer and Roy and members of the committee, my name is Mark Kohorst and I am Senior Manager for Environment, Health & Safety at the National Electrical Manufacturers Association. NEMA is the principal trade association representing the interests of the US electrical products industry. These comments reflect the view of several members of the NEMA residential controls section; specifically those companies that at one time manufactured and sold mercury-switch thermostats for residential use.

As an organization, NEMA understands and shares the widespread concern about potential hazards stemming from mercury-added products. In fact, before speaking directly to the bills under consideration here today, I'd first like to talk about the proactive measures NEMA members began taking long ago to address mercury switch thermostats in particular. This information is important for establishing the appropriate context for this legislation.

- In 1998, three members of NEMA's residential controls section – Honeywell, GE, and White-Rodgers – founded a non-profit recycling corporation to provide a nationwide mechanism for safe disposal of mercury switch thermostats.¹ The Thermostat Recycling Corporation (TRC) was one of the first producer responsibility organizations established in the US. It now has 31 corporate members and has recycled more than 1.37 million mercury thermostats since its inception, thereby diverting roughly 6.3 tons of mercury from the solid waste stream.
- The TRC operates by way of reverse distribution through HVAC wholesalers, contractors, HHW facilities, and to a smaller extent, through retail outlets. Aside from a one-time, \$25 fee for collection bins, the program is cost free for participants – manufacturers assume all of the operational expenses. The member companies have invested heavily to improve administration of the program and expand into different collection routes, and TRC works closely with state regulatory authorities on education and outreach activities.

¹ Mercury switch thermostats can contain up to 6 switches per unit, each of which contains approximately 2.8 grams of mercury

- TRC works very hard at building awareness of its program within the industry. It has a formal relationship with HARDI (Heating Air Conditioning Refrigeration Distributors International) defined by an MOU - exhibiting at its meetings and sponsoring an annual award program. TRC also collaborates with the Air Conditioning Contractors of America (ACCA) and the Oil Heating and Energy Service Professionals (OESP) which represents service managers for oil dealers. TRC fostered relationships and works with these groups because they represent critical links in the distribution chain for thermostats.
- TRC first distributed collection bins in CT in 2000 and records show more than 50 locations, mostly HVAC wholesalers, have volunteered to participate as collection sites. The number of thermostats returned through these bins grew steadily at first, but has leveled off in recent years and has averaged 1850 thermostats per year since 2008. TRC has collected almost 13,000 thermostats in CT since it began operating here, which has kept about 117 pounds of mercury from the state's waste stream.
- Admittedly, these totals are low relative to the probable number of old mercury thermostats that come off the wall in CT each year. No one knows or can provide an accurate estimate of that number, but we can all agree that collections in the state can and should be higher. This brings us to the legislation under consideration here today – SB 93 and SB 350. Both of these bills would require manufacturers of mercury thermostats to establish a collection program – The industry did that over a decade ago. Beyond that the bills diverge in significant ways.
- SB 93 would require manufacturers to pay a financial incentive, or "bounty," to contractors or technicians who return mercury-switch thermostats for recycling. While we agree that the parties who remove most thermostats from the wall are the key players in this effort, NEMA strongly opposes the bounty approach, which has been tried in two of the nine states that have enacted thermostat collection laws.
- The data are clear that financial incentives are unnecessary, overly expensive and complex, and can lead to manipulation and abuse.² More importantly, their impact on collection rates has been no greater than alternative approaches being used in other states.
- Collection statistics bear this out. In 2011, California's collection rose 40%, Illinois by 45%, Pennsylvania by 50%, and Rhode Island by 154%. All of these states have mandatory programs in place but do NOT require a bounty. Meanwhile collections in Maine and Vermont, the only states that *do* have a bounty provision, were flat for 2011 – virtually no change at all from 2010. This is especially noteworthy in Maine, which is consistently raised as some sort of "model" framework for other states. The industry has always appreciated the efforts of the Maine DEP to help promote the program and enforce its requirements, but the collection increases since the bounty was enacted have continually been disappointing.
- The TRC's best performer in recent years by far is Maryland, which has no law in place at all. The state collected more than 60,000 thermostats in just over two years

² TRC has submitted documented evidence to the Maine DEP of apparent abuse and fraud within the program.

through an arrangement established between Honeywell – the largest TRC member - and Baltimore Gas & Electric, the regional utility. That program has now tapered off, but stands as a great example of the type of demand-response mechanism that produces real results.

- So what do NEMA and the TRC recommend for CT? I will reiterate the themes I shared with this committee last year, which are drawn from what we've learned over the 14 year life of the program. First, **shared responsibility** is crucial. There must be obligations on all parties within the distribution chain **along with** active participation by state regulatory authorities to enforce those obligations. Unfortunately, very few of the key elements are in place in CT right now. These include the following:
 1. **Mandatory contractor recycling coupled with Disposal Ban** – Contractors remove and dispose of the vast majority of mercury-switch thermostats. Legislation should therefore impose a legal responsibility on contractors to handle thermostats in accordance with hazardous waste laws, and to dispose of them properly. **In addition, NEMA supports a statewide disposal ban on mercury thermostats.** To our knowledge, such a ban does not currently exist and it is **perfectly legal** to dispose a mercury thermostat as regular trash. Changing this situation should be priority one in any plan to manage end-of-life thermostats effectively.
 2. **Mandatory wholesaler participation** - To ensure that contractors disposing mercury thermostats have widespread access to the collection network, state law should make it mandatory for HVAC wholesalers who sell thermostats to act as collection sites.
 3. **Shared education and outreach** – Manufacturers voluntarily established a nationwide collection program, but to succeed they need the help of other stakeholder groups with more direct exposure to and influence over target audiences. State environmental agencies, wholesalers, and retailers can all play a valuable role in spreading the word about thermostat recycling.
 4. **Explicit authority for the programs to manage risk**– Industry programs should be granted authority to act as needed to manage risk, which includes expelling collection sites from the program for violating shipping or storage policies. Handling and transportation of mercury-containing devices are strictly regulated and manufacturers must have leeway to ensure that all participants remain in compliance.
 5. **A “sunset” provision on recycling programs** – Very few companies, and no NEMA members, still produce mercury-switch thermostats, which are banned for sale in a growing number of states. Thus the existing stock of these devices coming into the waste stream is steadily declining. Laws should therefore include a “sunset” provision that sets a date for ending the obligation on manufacturer to operate their programs.

These elements are reflected in the other bill under consideration by the committee today – SB 350 – without the complex and unnecessary bounty provision. We believe

this bill offers the best framework for increasing the rate of thermostat collections in Connecticut and are pleased to endorse its passage.

That concludes my testimony and I am happy to answer any questions you may have.

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Turning Up The Heat

**Exposing the manufacturers' lackluster
mercury thermostat collection program**



February 2010

Acknowledgements

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Vermont Public Interest Research Group

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The contents of this report are the sole responsibility of the campaign partners.

Executive Summary

Throughout the United States, mercury poses a severe health and environmental threat. The federal Centers for Disease Control and Prevention estimates that between 300,000 and 630,000 infants are born in the United States each year with mercury levels that are associated with the loss of IQ.

Mercury containing thermostats are a significant source of preventable mercury pollution. The U.S. Environmental Protection Agency (EPA) estimated that 2-3 million thermostats come out of service each year. Each thermostat contains about four grams of mercury.

While intact mercury-containing thermostats do not pose a public health risk, when they are disposed of in landfills or incinerators, the mercury can be released into the environment where it makes its way into lakes, rivers, and streams and contaminates fish.

Over the last fifteen years, the use of mercury in U.S. thermostat manufacturing has been reduced from 15-21 tons annually to less than one ton per year. This striking reduction can be attributed to state legislation banning the sales of new mercury thermostats, and the subsequent ending of mercury thermostat production by the "Big 3 manufacturers," Honeywell, White-Rodgers, and General Electric.

However, ending the production and sale of new mercury thermostats addresses only part of the problem. **Tens of millions of mercury thermostats containing several hundred tons of mercury are still in use in U.S. homes and businesses.** Given that mercury-containing thermostats can last 15 to 30 years or more, this vast reservoir of mercury currently on the walls in homes and businesses will be making its way into landfills and incinerators for decades to come unless effective collection programs are created.

In 1998, the Big 3 manufacturers developed a voluntary recycling program, administered by a non-profit entity they created called the Thermostat Recycling Corporation (TRC). TRC provides participating

wholesalers with collection bins where HVAC contractors drop off old mercury thermostats. When the bins are full, they are shipped to TRC for recycling.

Unfortunately, TRC collection data indicates that their voluntary program has failed to collect the vast majority of mercury thermostats coming out of service. From 1999 to 2008, TRC collected 3.65 tons of mercury. During that same period, the EPA conservatively estimated 70-100 tons of mercury in thermostats came out of service. **Over the past decade, TRC has collected less than 5% of what EPA estimated came out of service.**

In many states, the TRC program barely functions, capturing only a tiny fraction of discarded mercury thermostats. It's clear that the TRC program is capturing only the tip of the iceberg, and certainly not meeting its own program objective of "recycling every end of use mercury-containing thermostat."¹

However, the TRC program results are much better when financial incentives are included. In 2006, Maine enacted the nation's first comprehensive mercury thermostat collection law and has the highest per capita mercury thermostat collection rate in the country. Among other requirements, the law obliges thermostat manufacturers to collect mercury thermostats and provide a \$5 financial incentive to encourage professionals and homeowners to recycle thermostats. A project in Vermont and a nationwide review of collection programs also found a financial incentive to be a critical factor for motivating program participation.

Adopting strong state laws with financial incentives and performance standards for recycling mercury thermostats is the most important change needed to drastically improve the TRC program and prevent mercury pollution. This report reviews the threat posed by mercury thermostats and makes recommendations for state programs. The full set of recommended changes is detailed at the end of the report.

Introduction

Mercury's Health and Environmental Threats

Even in small quantities, mercury can cause significant health and environmental problems. Mercury released into the atmosphere can be transported long distances and deposited in aquatic ecosystems, where it converts to methyl mercury, the most toxic form of mercury.

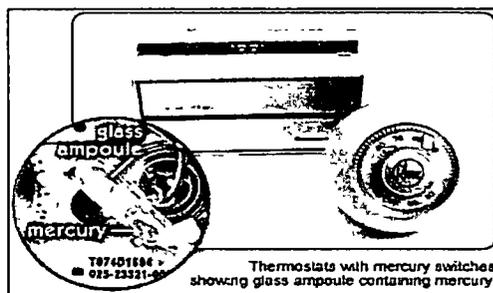
Mercury is a danger to the development of the human fetus and young children. The federal Centers for Disease Control and Prevention estimate that between 300,000 and 630,000 infants are born in the United States each year with mercury levels that are associated, at later ages, with the loss of IQ.² New evidence indicates that methyl mercury exposure may increase the risk of cardiovascular disease in humans, especially adult men.³

Methyl mercury bioaccumulates and biomagnifies in the food chain, so for most people, the main source of exposure is fish consumption. If mercury accumulation reaches levels that pose risks to human health, states issue fish consumption advisories to provide information to their residents on the amount and types of fish that are safe to eat.⁴ In 2008, 80% of all fish advisories in the United States were due to the presence of mercury, covering all 50 states, one U.S. territory, and three tribes. Twenty-seven states have statewide advisories for all their fresh water lakes and rivers, and 13 states have statewide advisories for all their coastal waters.⁵

Similarly, the Food and Drug Administration (FDA) and the Environmental Protection Agency (EPA) advise women who may become pregnant, pregnant women, nursing mothers, and young children to avoid some types of fish and to eat fish and shellfish that are lower in mercury.⁶

Mercury Use in Thermostats

Mercury thermostats use mercury switches to control room temperature through communication with heating, ventilating, and air conditioning (HVAC) equipment. Older thermostats often contain mercury. The photo shows some common mercury thermostats and the glass ampule under the cover, which contains the mercury.



Mercury thermostats have bi-metal coils that contract and expand with room temperature. When the coil contracts or expands, it activates the mercury switch, which opens or closes a circuit to make the furnace, heat pump, or air conditioner turn on or off.⁷

The amount of mercury in each thermostat largely depends upon the number of switches it contains, which will depend on how many heating and cooling systems it activates. According to TRC, mercury thermostats contain an average of 1.4 mercury switches, with a minimum of 2.8 grams of elemental mercury per switch. Therefore, the total amount of mercury used in each mercury thermostat averages to about four grams.⁸

The mercury in a thermostat will pollute the air, land or water if not managed properly at the end of its useful life. As TRC correctly observes on its website, "a mercury-switch thermostat poses a risk to the environment... when improperly disposed in solid waste" because the mercury will be released if the thermostat is broken, crushed, or burned during waste handling or at a landfill or incinerator.⁹ Since mercury is volatile at room temperature, even mercury releases during crushing or breakage typically becomes part of the mercury pollution problem.

Alternatives to Mercury Thermostats

Excellent alternatives to mercury thermostats are available, many of which have the added benefit of being energy efficient. The best alternatives are programmable, digital thermostats, which can be set to change the temperature at specific times of the day.

EPA's Energy Star program notes that a properly programmed digital thermostat can save a family \$180 a year in energy costs.¹⁰ Several electric utilities around the country offer rebates of \$25-\$100 to encourage the purchase of programmable thermostats in order to reduce energy use.¹¹

Although programming the thermostat is no more difficult than adjusting a digital watch, many new thermostats are "smart" – meaning they come pre-programmed with energy efficient settings. This way, even those not adept at working digital gadgets can immediately start accruing cost savings and environmental benefits from their non-mercury thermostat.

The Phase-Out of Mercury Thermostats

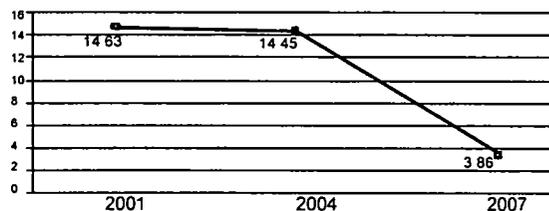
For decades, mercury-added thermostats occupied a dominant share of the U.S. market place, particularly after Honeywell's introduction of the popular T-87 round model in 1953. Even after electronic non-mercury thermostats were introduced several decades ago, millions of mercury-added thermostats were still manufactured.

EPA estimated 15-21 tons of mercury was used to manufacture thermostats in 1997.¹² In 2001, thermostat manufacturers used 14.63 tons of mercury to manufacture thermostats, according to the reports they filed with the Interstate Mercury Education and Reduction Clearinghouse (IMERC).¹³ Virtually all of this mercury was reportedly used by the Big 3, as indicated by the IMERC report they filed collectively.¹⁴

Even in 2004, 14.45 tons of mercury were reportedly used to manufacture thermostats, again mostly by the Big 3. **However, by 2007 mercury use dropped by 73%.** (See Exhibit 1.)

This dramatic drop in mercury use from 2001-2007 can be attributed in large part to the passage of legislation in 15 states prohibiting the sale of new mercury

Exhibit 1
Annual Mercury Use in Thermostat Manufacturing 2001-2007 (Tons)



Mercury use in thermostats dropped 73% from 2001-7 in large part due to state laws banning the sale of mercury-containing thermostats¹⁵

thermostats. In the face of shrinking market availability for their mercury products, Honeywell announced in 2006 that it would end its production of mercury thermostat switches, and the other companies in the Big 3 have reportedly followed suit. Based on these announcements, post-2007 mercury use can be expected to decline to under one ton.¹⁶

This 73% reduction in thermostat mercury use mirrors a smaller but still substantial drop of 46% in overall mercury use in U.S. product manufacturing. IMERC reports decreases by various product categories, largely due to state product restrictions. (See Exhibit 2.)

Exhibit 2
2001-2007 Mercury Consumption
U.S. Mercury Product Manufacturing

Products & Components	Total Mercury Sold in U.S. (Tons)		
	2001	2004	2007
Switches & Relays	57.81	51.78	30.77
Dental Amalgam	30.77	30.39	16.48
Thermostats	14.63	14.16	3.86
Lamps	10.16	9.56	10.63
Miscellaneous	5.11	2.40	2.78
Batteries	2.95	2.53	2.07
Chemicals & Solutions	1.03	0.91	1.43
Sphygmomanometers	2.15	1.11	0.83
Thermometers	1.70	1.40	0.30
Manometers	0.97	1.27	0
Barometer	0.18	0.12	0
Total	~129.4 tons	~115.2 tons	~69.2 tons

Mercury use in U.S. product manufacturing dropped by 46% from 2001 to 2007¹⁷

The Failing Industry Thermostat Collection Program

Tons of Mercury in Thermostats Awaiting Collection

While very few new mercury thermostats will be manufactured in the United States,¹⁸ there are many millions of mercury thermostats still in use from historic sales. **Conservative estimates show these thermostats contain 230 tons or more of mercury.** Thermostats can effectively operate for 30 years or more, and in fact are more routinely replaced as a result of building renovations or heating/cooling system upgrades than product failure.

In 1994, EPA estimated 70 million mercury thermostats were installed in domestic residences, and based on three grams of mercury per thermostat, calculated that 230 tons of mercury were on the wall in American homes.¹⁹ The 230 tons may have been an underestimate of the mercury reservoir attributable to thermostats insofar as only thermostats in homes (and not commercial or other buildings) were considered, and the average mercury thermostat contains about four grams of mercury.²⁰

Of course, not all these thermostats will come out of service at the same time. **EPA estimated that 2-3 million mercury thermostats come out of service each year, amounting to 7-10 tons of mercury,** again assuming only three grams of mercury per thermostat.²¹ This EPA value must also be considered a very conservative estimate, since that same year, in consultation with Honeywell as part of the economic support for the universal waste rulemaking, EPA estimated about 4.5 million mercury thermostats were removed from service annually, 3.4 million from households and the remainder from businesses.²²

Similarly, TRC (through its consultant) recently provided the State of California its estimate of how many mercury thermostats are available for recycling annu-

ally in that state. Estimating only 22%-46% of thermostats from businesses and 27%-47% of thermostats from households in California contain mercury, TRC calculated between 237,000 - 490,000 mercury thermostats will be discarded this coming year statewide.²³ Significantly, the midpoint of this TRC estimate (363,500) is larger than the uppermost range of EPA's very conservative 1994 estimate, based upon California's per capita portion of this estimate.²⁴

The Thermostat Recycling Corporation

In 1998, the Big 3 established a non-profit entity called the Thermostat Recycling Corporation (TRC), and began a voluntary industry take back program to collect mercury thermostats in nine states. The TRC program expanded to an additional 13 states in 2000, and became a national program (excluding Alaska and Hawaii) in 2001.²⁵

Under the base TRC program, thermostat wholesalers voluntarily enroll to receive a TRC-supplied container for thermostat collection. HVAC contractors are then encouraged to drop off mercury thermostats at participating wholesaler locations when they purchase new thermostats or other supplies.

When the collection container is full, the wholesaler ships it, at TRC expense, to a Honeywell facility in Minnesota, where the thermostat is dismantled and the mercury switch is sent to a commercial mercury recovery facility. A new collection box is sent to the wholesaler after receipt of the shipped container, free of charge, so the out-of-pocket cost for the participating wholesaler is limited to a one-time charge (now \$25.00) for the initial collection box.²⁶

TRC Program Collection Data

Unfortunately, TRC collection data indicate the base program has failed to collect the vast majority of mercury thermostats coming out of service. Exhibit 3 provides the national program collection data through 2008, the last year for which data are publicly available.

Over this ten year period, TRC collected 7,300 pounds, or 3.65 tons of mercury. Compared to the conservative EPA estimate of 70-100 tons of mercury in thermostats coming out of service, the TRC program captured 3.7-5%.

Even looking at just 2008, the program's most successful year, TRC collected 6.4-9.2% of the EPA mercury estimate.

Another way to evaluate TRC program effectiveness is to examine the state-by-state program performance data. Exhibit 4 provides the 2008 state collection data, sorted by per capita rates. In almost half of the states where TRC collected thermostats in 2008 (21 of 45), TRC collected less than 1,000 thermostats. TRC collected more than 5,000 thermostats in only nine states.

Exhibit 3

TRC National Annual Collection Summary

Year	Thermostats Collected	Mercury lbs. Collected
1999	27,780	237
2000	31,611	256
2001	48,215	402
2002	90,501	762
2003	64,957	626
2004	80,094	729
2005	87,899	820
2006	113,658	1,083
2007	114,158	1,103
2008	135,604	1,282

Over the past decade, TRC has collected 7,300 lbs of mercury – less than 5% of what EPA conservatively estimated came out of service

Using TRC's own estimate of the number of mercury thermostats discarded in California, TRC collected only 1-3% of the available thermostats in that state.

Other evaluations of the TRC program come to a similar conclusion. For example, the Northeast Waste Management Officials' Association (NEWMOA) recently estimated TRC collected approximately 3% of the mercury thermostats coming out of service in Massachusetts during 2006. Capture rates for other northeast states ranged from 1.3% in New York to 12.7% in Maine.²⁷

TRC as Spin Doctors

Rather than working to address these meager collection rates, TRC is working to spin the results of their program. In its 2008 Annual Report, TRC is "ecstatic" about the 19% overall increase in thermostats collected versus 2007, and the "double digit" increases in 27 states.²⁸

However, a closer look at TRC's data indicates this method of measuring program performance by annual improvement mostly identifies state collection rates moving from paltry to pathetic.

Exhibit 5 reproduces Table 1 of TRC's 2008 Annual Report providing the state-by-state 2007 and 2008 comparisons. The chart demonstrates, almost invariably, the states with the highest growth rates collected fewer than 1,000 thermostats in 2007, thus even with triple digit increases in collection rates, thermostat collection in these states remains extremely poor.

Accordingly, many of the states with the highest growth rates (i.e., Georgia, Texas) still rank among the lowest in per capita collection rates (compare Exhibits 4 and 5). For example, Georgia is ranked first with a 1050% improvement, but still barely collected 500 thermostats statewide and ranks near the bottom in per capita collection rates.

The objective of thermostat collection is to ensure the mercury in thermostats is not released into the environment at their end of life. Measuring program performance based on its ability to capture mercury thermostats coming out of service is the best indicator of achieving this objective.

In contrast, measuring effectiveness through annual program improvements masks the amount of mercury

Exhibit 4
TRC 2008 Per Capita
State Collection Data

State	Thermostats Collected	Population 2008	Thermostats collected per 10,000 residents
(Maine)	(6,555)	(1,318,456)	(42.2)
Minnesota	12,724	5,220,393	24.4
Vermont	1,367	621,270	22.0
Maryland	10,207	5,633,597	18.1
Wisconsin	8,663	5,827,967	15.4
Virginia	8,191	7,769,089	10.5
Oregon	3,072	3,790,060	8.1
Delaware	881	873,092	7.8
North Dakota	483	641,481	7.5
Ohio	8,571	11,485,910	7.5
Michigan	7,436	10,003,422	7.4
Indiana	4,814	6,376,792	7.2
Florida	12,410	18,328,340	6.8
Pennsylvania	7,560	12,448,279	6.1
Nebraska	998	1,783,432	5.6
(Connecticut)	(1,838)	(3,501,252)	(5.2)
Iowa	1,538	3,002,555	5.1
Washington	3,338	6,549,224	5.1
Kansas	1,317	2,802,134	4.7
Montana	435	967,440	4.5
Massachusetts	2,770	6,497,967	4.3
New Hampshire	546	1,315,809	4.1
Idaho	565	1,523,816	3.7
North Carolina	3,407	9,222,414	3.7
Kentucky	1,571	4,269,245	3.7
Rhode Island	370	1,050,788	3.5
Illinois	4,338	12,901,563	3.4
New Jersey	2,758	8,682,661	3.2
West Virginia	455	1,814,468	2.5
South Dakota	173	804,194	2.2
New York	3,774	19,490,297	1.9
California	7,007	36,756,668	1.9
Missouri	895	5,911,605	1.5
Tennessee	880	6,214,888	1.4
Arizona	763	6,500,180	1.2
Nevada	254	2,600,187	1.0
Colorado	482	4,939,456	1.0
South Carolina	376	4,479,800	0.8
Texas	1,820	24,326,974	0.7
Arkansas	212	2,855,390	0.7
Oklahoma	248	3,642,381	0.7
Georgia	506	9,685,744	0.5
Mississippi	142	2,938,618	0.5
Louisiana	183	4,410,796	0.4
Alabama	119	4,661,900	0.3
Alaska		686,293	0.0
D.C.		591,833	0.0
Hawaii		1,288,198	0.0
New Mexico		1,984,356	0.0
Utah		2,736,424	0.0
Wyoming		532,688	0.0
Totals	135,604	304,059,724	4.5

Exhibit 5
TRC 2007 to 2008 State Comparisons
of Number of Thermostats Collected

State	2007	2008	Growth
Georgia	44	506	1050.00%
Texas	344	1820	429.07%
Rhode Island	81	370	358.79%
Nevada	58	254	337.93%
North Dakota	112	483	331.25%
Idaho	166	565	240.36%
West Virginia	153	455	197.39%
Delaware	229	681	197.38%
Montana	174	435	150.00%
Michigan	3135	7436	137.19%
Kentucky	674	1571	133.09%
Connecticut	839	1838	119.07%
Nebraska	562	998	77.58%
Arkansas	122	212	73.77%
Kansas	836	1317	57.54%
New York	2396	3774	57.51%
Virginia	5817	8191	40.81%
Massachusetts	2024	2770	38.86%
South Carolina	280	378	34.29%
Ohio	6544	8571	30.97%
Pennsylvania	6175	7560	22.43%
California	5750	7007	21.88%
Maine	4858	5555	19.31%
New Jersey	2329	2758	18.33%
Minnesota	10795	12724	17.87%
Maryland	8765	10207	18.45%
North Carolina	2994	3407	13.79%
Oregon	2798	3072	9.87%
Florida	12261	12410	1.22%
Illinois	4367	4336	-0.71%
Colorado	490	482	-1.83%
Washington	3398	3336	-1.82%
Arizona	838	763	-8.85%
New Hampshire	615	548	-11.22%
Iowa	1735	1536	-11.47%
Indiana	5490	4814	-15.96%
Vermont	1665	1367	-17.90%
Wisconsin	11542	8663	-24.94%
Missouri	1332	895	-32.81%
Louisiana	391	163	-53.20%
South Dakota	564	173	-69.33%
Alabama	540	119	-77.96%

TRC's measure of program effectiveness, the percentage improvement over the previous year, ignores the fact that most mercury thermostats are still not collected and often highlights the states with the worst performing programs

cluding the collection program and potentially released to the environment due to improper waste management.

It is essential to include performance goals in state programs because absent such goals, program success is undefined. This vacuum allows TRC to tout the collection of less than 1,000 thermostats in almost half their states as "successful," simply because the total number of thermostats collected grows a little bit each year.

Getting By On A Shoestring

TRC's poor program performance reflects the relatively meager resources manufacturers devote to the program.

For 2008, TRC spent about \$275,000 to support its program nationwide, according to information TRC

provided to the Maine Department of Environmental Protection.²⁹ Of this total, \$160,405 reflects the cost associated with transporting, processing and recycling the thermostats.³⁰ An additional \$77,542 supported the TRC Executive Director and overhead. Of the remaining amount, TRC devoted \$21,024 to education and outreach in Maine, and virtually nothing on education and outreach anywhere else (besides general website maintenance).

With only one dedicated staff person for the entire country, and no significant budget for education and outreach (except where a new law forced the issue), the TRC program results are not surprising. Perhaps what is surprising is that TRC has been able to squeeze by with so little financial investment for so long. Again, without meaningful performance standards, the easy and cheaper road will remain available to TRC.

State Action to Promote Thermostat Collection Programs

In response to the lackluster TRC program, states and local governments have undertaken initiatives to improve thermostat collection rates. Two of the most important initiatives, from Maine and Vermont, are highlighted here.³¹

Maine's Leading Program

In 2006, Maine enacted the first comprehensive mercury thermostat collection law in the nation.³² The legislation includes the following components:

- Mercury thermostat manufacturers who sold thermostats in Maine are required to establish a collection program serving both HVAC professionals and homeowners.
- The sale of *any* thermostat in Maine by manufacturers not complying with the collection requirement is prohibited.

- Manufacturers are required to provide a financial incentive with a minimum value of \$5 to both professionals and homeowners for returning a mercury thermostat to their collection locations.
- Manufacturers are required to provide collection services to wholesalers and household hazardous waste (HHW) facilities.
- Wholesalers which sell thermostats must participate in the manufacturer collection programs.
- Aggressive performance goals were established for the manufacturer collection programs based on the amount of mercury collected from thermostats coming out of service.

As a result of implementing this legislation, Maine has achieved the highest per capita mercury thermostat collection rate in the country by far, almost twice as high as the second best state, and almost 10 times the national average (see Exhibit 4).

The Vermont Pilot

In 2007, the Vermont Agency of Natural Resources (VT ANR) launched a thermostat collection pilot project in collaboration with 86 retail hardware stores. For two months, homeowners were provided an in-store credit of \$5 usable for any item in the store if they returned their used mercury thermostats for recycling.

During these two months, almost 1,200 mercury thermostats were collected, more thermostats than TRC had collected in Vermont in five years (from 2002-2006).³³ As the VT ANR indicated in its report on the pilot to the Vermont Legislature:

...a financial incentive coupled with adequate program advertising and convenient recycling can yield substantial increases in mercury thermostat recycling. Through contact with homeowners who participated in Vermont's pilot program, there seemed to be a variety and often a combination of factors that motivated individuals to participate, including the cash incentive, convenient recycling, and environmental concerns....

Was the cash incentive a significant motivating factor in the collection program? It was significant enough that of all the thermostats collected, only about 40 of the thermostats did not have a cash incentive payout (and some of this was due to a limit of 3 thermostat rebates per customer when a customer turned in more than three thermostats).

The [ANR] has seen disappointing results in thermostat collection at wholesaler locations when only outreach and convenient recycling have been provided as motivators.. we believe that a similar financial incentive offered for mercury thermostats returned primarily by contractors to wholesale locations would yield significant increases in thermostat collection.³⁴

This successful pilot led to the adoption of a Vermont thermostat collection law in 2008 that includes, among other provisions, a requirement that thermostat manufacturers provide a minimum \$5.00 financial incentive for each mercury thermostat that is turned in for recycling by either professionals or homeowners.³⁵

These practices are in line with the results of a report the state of Massachusetts contracted from NEWMOA to identify mechanisms that could be used to enhance the recycling of thermostats. The report reviewed thermostat collection and recycling programs from several states and by TRC in order to determine best practices. The report recommends four characteristics of successful programs, namely: 1) a mandated financial incentive for contractors and homeowners that collect and recycle thermostats, 2) an effective education program about disposal ban requirements, 3) accessible and convenient collection sites, and 4) outreach about the environmental and health benefits of thermostat recycling.³⁶

Policy Recommendations

Based on the experiences of states with collection programs, and reinforced by the NEWMOA report, there are several key steps that state governments should take immediately to prevent mercury thermostats from entering the waste stream, and ultimately, contaminating the environment.

1.) States should ban the sale of mercury thermostats. While the Big 3 U.S. manufacturers report that they have ended mercury thermostat production, other smaller domestic or overseas manufacturers may continue to sell mercury thermostats where permitted by law. Fifteen states have already prohibited the sale of mercury-containing thermostats. With viable non-mercury thermostats now dominating the market, all states should ban the sale of mercury-containing thermostats.

2.) States should ban the disposal of all mercury-containing thermostats into the solid waste stream. To both encourage active participation in collection programs and to prevent mercury pollution in the environment, states should require that all mercury thermostats be recycled.

3) States should require manufacturers to finance thermostat collection systems and provide a financial incentive to encourage participation in the program. The collection and recycling of mercury thermostats should be made a legal obligation for manufacturers who sold mercury thermostats. The TRC program could meet this obligation, if it provides convenient collection options for both contractors and homeowners, enhanced education and outreach, and a financial incentive to encourage contractor and homeowner participation. The financial incentive has been demonstrated to significantly improve collection rates.

4) States should require that manufacturer take-back programs be held accountable to meaningful and quantifiable performance standards. Because the goal is to reduce mercury pollution, the TRC program must be held to meaningful performance standards based on the percentage of annually discarded mercury thermostats collected. Program performance should be evaluated periodically against the standards to determine if program enhancements are required.

5) States should require wholesalers to provide bins and consumer education as part of a collection program. Wholesalers selling thermostats to contractors must participate in the manufacturer collection program to ensure convenient collection locations are available to contractors. Wholesalers must inform their contractor customers of the presence of the bins in their stores, and the legal and environmental necessity of returning mercury thermostats for recycling.

6) States should require HVAC contractors to participate in the collection program as part of their licensing arrangement with the state. Contractors replacing mercury thermostats for homeowners should assume responsibility for complying with this collection requirement. Recycling mercury thermostats should become a condition of contractor professional licensing, where such licensing requirements exist.

7) All government agencies and low-income housing facilities should establish procurement preferences for energy efficient programmable thermostats. Even among non-mercury thermostats, there are often significant differences in efficiency. Purchases involving taxpayer dollars should be encouraging the production and use of the more energy efficient models.

End Notes

1. Thermostat Recycling Corporation (TRC) Website <http://www.thermostat-recycle.org/FAQ> as viewed on January 14, 2010.
2. CDC's National Health and Nutrition Examination Survey (NHANES) <http://www.cdc.gov/nmwr/preview/minwrhtml/mm5343a5.htm>
3. Choi, AL, P Weihe, E Budtz-Jørgensen, PJ Jørgensen, JT Salonen, T-P Tuomainen, K Murata, HP Nielsen, MS Petersen, J Askham and P Grandjean. 2008. Methylmercury exposure and adverse cardiovascular effects in Faroese whaling-men. *Environmental Health Perspectives* <http://ehp.niehs.nih.gov/docs/2008/11608/abstract.html>
4. Northeast States Succeed in Reducing Mercury in the Environment <http://www.newmoa.org/prevention/mercury/MercurySuccessStorySummary.pdf>
5. U.S. Environmental Protection Agency (EPA) National Listing of Fish Advisories General Fact Sheet: 2008 National Listing <http://www.epa.gov/waterscience/fish/advisories/fs2008.html>
6. EPA and FDA Advice. What You Need to Know about Mercury in Fish and Shellfish 2004 <http://www.epa.gov/waterscience/fish/advice/index.html>
7. Interstate Mercury Education and Reduction Clearinghouse (IMERC) Fact Sheet Mercury Use in Thermostats Last Update: July 2008 <http://www.newmoa.org/prevention/mercury/imerc/factsheets/thermostats.pdf>
8. See discussion below and IMERC Fact Sheet: Mercury Use in Thermostats <http://www.newmoa.org/prevention/mercury/imerc/factsheets/thermostats.pdf>
9. TRC Mercury Thermostat Facts <http://www.thermostat-recycle.org/mercuryfacts>
10. Energy Star Programmable Thermostats http://www.energystar.gov/index.cfm?c=thermostats_pr_thermostats
11. Million Car Carbon Campaign <http://www.millioncarmacampaign.com/thermostatrebates.php>
12. Use and Release of Mercury in the United States, EPA/600/R-02/104, December 2002 (hereafter "EPA Report"), available at <http://www.epa.gov/nrmrl/pubs/600r02104/600r02104prel.pdf> Exhibit 3-8.
13. IMERC was created in 2001 to facilitate implementation of state mercury product legislation, including the collection and analysis of data submitted by product manufacturers pursuant to notification requirements in the legislation. Fourteen states are now members of IMERC. For more information on IMERC, see <http://www.newmoa.org/prevention/mercury/imerc/about.cfm>.
14. See IMERC notification report at <http://www.newmoa.org/prevention/mercury/imerc/Notification/totals.cfm?total=417&filing=1162>.
15. Presentation of Adam Wienert, IMERC Coordinator, November 2009 (hereafter "IMERC Presentation"), available at http://www.newmoa.org/prevention/mercury/conferences/sciandpolicy/presentations/Wienert_Session3B.pdf
16. The Big 3 used 2.95 tons of mercury to manufacture thermostats in 2007, and based on their announcements, it can be presumed this mercury use ended shortly thereafter. See National Electrical Manufacturers Association (NEMA) notification to IMERC dated April 11, 2008.
17. IMERC Presentation.
18. The import and sale of mercury thermostats may still occur, thus legislation restricting mercury thermostat sales is still advised, as discussed below.

- 19 EPA Report at 29
20. As noted in Exhibit 3, the 135,604 thermostats TRC collected in 2008 contained 1,282 pounds of mercury. This 1,282 pounds corresponds to 581,505 grams of mercury, or 4.29 grams of mercury per thermostat.
21. EPA Report at 30.
22. Analysis of Potential Cost Savings and the Potential for Reduced Environmental Benefits of the Proposed Universal Waste Rule, EPA 530-R-94-023, April 1994, p. 3-10.
23. Skumatz Economic Research Associates, Mercury-Containing Thermostats: Estimating Inventory and Flow from Existing Residential & Commercial Buildings, December 28, 2009, Tables 1.1 and 1.5 (hereafter "TRC California Report"), available at http://www.dtsc.ca.gov/HazardousWaste/upload/TRCThermostat-Report-12_09.pdf
24. California accounts for about 12% of the USA population, so 3,000,000 thermostats x 0.12 = 360,000 thermostats.
25. Other manufacturers have now joined the TRC collection program, in response to state laws requiring thermostat collection in Maine and elsewhere (see discussion below).
26. See generally the TRC website, at <http://www.thermostat-recycle.org/howitworks>
27. Review and Assessment of Thermostat Recycling Activities in the Northeast, NEWMOA, June 2008 (hereafter "NEWMOA Report"), pp. 6-8, available at <http://www.newmoa.org/prevention/mercury/publications.cfm>
28. TRC 2008 Annual Report, p. 3, available at <http://www.thermostat-recycle.org/files/2008%20TRC%20Annual%20Report.pdf>.
29. TRC's 2008 Annual Collection Report to Maine DEP, January 30, 2009, Table 4.
30. Because of TRC's accounting methods, the 2008 recycling expenses reflect the actual recycling costs in 2007. Since 114,158 thermostats were collected in 2007, TRC's recycling costs average to about \$1.41/thermostat.
31. For a description of other state and local government initiatives, see the NEWMOA Report.
32. For the Maine law, see 38 MRS-A §1665-B <http://www.mainelegislature.org/legis/statutes/38/title38sec1665-B.html>
33. Mercury Thermostats: Methods to Increase Recycling, VT ANR Legislative Report, January 15, 2008 (hereafter "VT Pilot Report"), pp. 3-4, available at <http://www.mercvt.org/PDF/ThermostatFINAL.pdf>
34. Vermont Pilot Report, p. 6.
35. For a copy of the Vermont law, see <http://www.leg.state.vt.us/docs/legdoc.cfm?URL=/docs/2008/acts/ACT149.HTM>
36. See the NEWMOA Report.



If I Catch It, Can I Eat It?

A Guide to Eating Fish Safely
2011 Connecticut Fish Consumption Advisory



www.ct.gov/dph/fish
1-877-458-FISH (3474)

What About Fish from Markets and Restaurants?

Many fish from the market or restaurant are low in contaminants. Some of these fish are also high in omega-3 fatty acids, a nutrient oil from fish that improves brain development and helps prevent heart disease. However, some fish from the market can contain high levels of certain contaminants, especially mercury.

In general, people in the High Risk Group can eat up to 2 fish meals a week from the market or at restaurants. Certain fish are especially low in contaminants and can be eaten more often. The following are specific tips for those in the High Risk Group to choose healthy fish from the store:

- Swordfish and Shark: these contain high levels of mercury and should not be eaten.
- Canned tuna: Choose "light" tuna because it has less mercury than "white" tuna.
- Lobster and other shellfish are generally low in chemical contaminants. The tomalley portion of lobster (the green gland) can be high in contaminants and should not be eaten. This applies to lobster from Long Island Sound and elsewhere.

Fish from the Market and Restaurant

The Chart below provides general guidance for Women & Children on which fish to choose. Fish with ♡ hearts are either especially high in omega-3 fatty acids and/or very low in contaminants and can be eaten more than twice a week. Sushi: High risk groups should avoid *Kajiki* (contains swordfish). They should limit eating *Ahi*, *Magora*, and *Toro* (contains tuna) to 1 meal a month. Both swordfish and tuna contain high levels of mercury.

Eat 2 Meals a Week		Eat 1 Meal a Week	Avoid
Haddock	Perch	Salmon (farm-raised)	Swordfish
Cod	Tilapia	Tuna Steak	Shark
Salmon (wild) ♡	Herring ♡	Halibut	King Mackerel
Atlantic Mackerel ♡	Pollock ♡	Red Snapper	Striped Bass
Flounder ♡	Light tuna (canned)	White Tuna (canned)	Tilefish
Sole ♡	Trout ♡	Catfish (farm-raised)	
Sardines & Smelt ♡			
Shellfish oysters, shrimp, clams, scallops, lobster			

People in the **Low Risk Group** can safely eat higher amounts of market seafood. For example, swordfish or shark - once per month, tuna steak or halibut - twice per week.

Page 3



This pamphlet will give you information that will help your family avoid chemicals in fish and eat fish safely.

Fish from Connecticut's waters are a healthy, low-cost source of protein. Unfortunately, some fish take up chemicals such as mercury and polychlorinated biphenyls (PCBs). These chemicals can build up in your body and damage your nervous system. The developing fetus and young children are most sensitive. Women who eat fish containing these chemicals before or during pregnancy or nursing may have children who are slow to develop and learn. Long term exposure to PCBs may increase cancer risk.

What Does The Fish Consumption Advisory Say?

The advisory tells you how often you can safely eat fish from Connecticut's waters and from a store or restaurant. In many cases, separate advice is given for the High Risk and Low Risk Groups.

- You are in the High Risk Group if you are a pregnant woman, a woman planning pregnancy within a year, a nursing mother, or a child under six.
- If you do not fit into the High Risk Group, you are in the Low Risk Group.

Advice is given for three different types of fish consumption:

1 **Statewide FRESHWATER Fish Advisory:** Most freshwater fish in Connecticut contain enough mercury to cause some limit to consumption. The statewide freshwater advice is that:

- High Risk Group: eat no more than 1 meal per month.
- Low Risk Group: eat no more than 1 meal per week.

2 **Advisories for SPECIFIC WATERBODIES:** Certain waterbodies contain fish with higher levels of contaminants. These waterbodies include the Housatonic River, parts of the Quinnipiac River, certain lakes, and certain species from Long Island Sound. The large chart in the center of this pamphlet provides details on eating fish safely from these waterbodies.

3 **Advice for Fish Purchased from the MARKET:** Most fish from the market are healthy to eat and contain important nutrients such as omega-3 fatty acids. However, there are some fish that contain high levels of mercury or PCBs and so should be eaten less or not at all. This pamphlet points out which fish are healthy to eat and which ones are not safe to eat (small chart on page 3).

Are Trout Safe To Eat?

Most trout from Connecticut's rivers are safe to eat because they usually have little contamination and are routinely re-stocked. However, there are limits on trout from certain waterbodies due to PCBs and on large trout from lakes due to mercury (see large chart in center).

Page 1

How Do These Contaminants Get Into Fish?

Mercury and PCBs can build up in fish to levels that are thousands of times higher than in the water. These contaminants enter the water from:

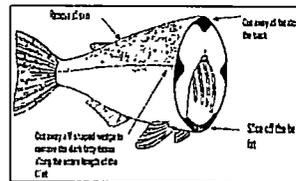
- **Chemical spills that happened in the past:** Even though these spills have been stopped, it will take years for the mercury or PCB levels in the fish to drop to safe levels.
- **Mercury in the air:** Mercury travels long distances from where it is released. Much of it comes from air pollution outside of Connecticut.

The Connecticut Department of Environmental Protection (CTDEP) is working to improve water quality in Connecticut and is limiting the amount of mercury which can be released into the air.

What Else Can I Do To Eat Fish Safely?

PCBs are mostly in the fatty portions of fish. It is very important to remove skin and other fatty parts. Cook fish on a rack (broil) so that fat can drip away from the flesh.

Remove fatty portions before cooking



Remove and do not eat the organs, head, skin and the dark fatty tissue along the back bone, lateral lines and belly.

Mercury is in the edible (fillet) portion of fish. Therefore, you cannot lower your exposure to mercury by cooking or cleaning the fish. Large fish usually have the highest levels of PCBs and mercury. If you have a choice, eat smaller fish of any species. In addition, certain smaller species generally have lower levels of contamination (perch, small trout, sunfish).

Page 2

Connecticut Safe Fish Consumption Guide



2011 Advisory for Eating Fish From Connecticut Waterbodies

STATEWIDE FRESHWATER FISH ADVICE

Waterbody	Fish Species	High Risk Group ^a	Low Risk Group ^b	Contaminant
<i>All fresh lakes, ponds, rivers & streams</i>	Trout ^c	No Limits on Consumption	No Limits on Consumption	--
	All other freshwater fish	One meal per month	One meal per week	Mercury

Special Advice for the Housatonic River Area

Waterbody	Fish Species	High Risk Group ^a	Low Risk Group ^b	Contaminant
<i>Housatonic River above Lake Lillinonah</i>	Trout, Catfish, Eels, Carp, Northern Pike	Do not eat	Do not eat	PCBs
	Bass, White Perch	Do not eat	One meal per 2 months	PCBs
	Bullheads	One meal per month	One meal per month	PCBs
	Panfish (yellow perch, sunfish, etc.)	One meal per month	One meal per week	PCBs
<i>Lakes on Housatonic River: (Lillinonah, Zoar, Housatonic)</i>	Catfish, Eels, Carp, Northern Pike, Trout	Do not eat	Do not eat	PCBs
	Bass, White Perch, Bullheads	One meal per month	One meal per month	PCBs
	Panfish (yellow perch, sunfish, etc.)	One meal per month	One meal per week	PCBs
<i>Furnace Brook (Cornwall)</i>	Trout	One meal per month	One meal per month	PCBs
<i>Blackberry River below "Blair Furnace (North Canaan)</i>	Smallmouth Bass	One meal per month	One meal per month	PCBs

Special Advice for Other CT Fresh Waterbodies

Waterbody	Fish Species	High Risk Group ^a	Low Risk Group ^b	Contaminant
<i>Dodge Pond Lake McDonough Silver Lake Wyassup Lake</i>	Largemouth Bass, Smallmouth Bass, Pickerel	Do not eat	One meal per month	Mercury
<i>Quinnipiac River above Gorge (Meriden)</i>	All Species	Do not eat	Do not eat	PCBs
<i>Q Gorge to Hanover Pond (Meriden)</i>	All Species	One meal per month	One meal per month	PCBs
<i>Eight Mile River (Southington)</i>	All Species	Do not eat	Do not eat	PCBs
<i>Connecticut River</i>	Carp Catfish	Do not eat Do not eat	One meal per 2 months One meal per month	PCBs PCBs
<i>Versailles, Papermill Ponds & attached Little River (Sprogue)</i>	All Species	Do not eat	Do not eat	Mercury, PCBs
<i>Konkapot River (North Canaan)</i>	White Suckers	Do not eat	One meal per month	Mercury
<i>Brewster Pond (Straford)</i>	Catfish & Bullheads	Do not eat	Do not eat	Chlordane
<i>Union Pond (Manchester)</i>	Carp, Catfish, Bass	Do not eat	Do not eat	Chlordane

SPECIAL ADVICE FOR LONG ISLAND SOUND

Waterbody	Fish Species	High Risk Group ^a	Low Risk Group ^b	Contaminant
<i>Long Island Sound and connected rivers</i>	Striped Bass	Do not eat	One meal per month	PCBs
	Bluefish over 25"	Do not eat	One meal per month	PCBs
	Bluefish "13- 25" ^d Weakfish	One meal per month One meal per month	One meal per month One meal per month	PCBs PCBs
<i>Mill River, Fairfield (excluding Southport Harbor)</i>	Blue Crab	Do not eat	Do not eat	Lead

Footnotes from Table

a. *High Risk Group* includes pregnant women, women planning pregnancy within a year, nursing women, and children under age 6

The *High Risk Group* should eat no more than one fish meal per month of most freshwater fish from local waters

b. The *Low Risk Group* should limit eating most freshwater fish to once a week

c. Most trout are not part of the advisory and are safe to eat. However, the high risk group should eat no more than one large trout (over 15") per month and should eat no trout from the Housatonic River

d. Snappers, which are bluefish under 13", are not on the advisory because they have very low contamination

REMEMBER

Follow this advisory to make sure the fish you choose to eat are safe for your family

- Every fresh waterbody has some consumption limits as indicated at the top of the chart
- *Long Island Sound* Most fish are safe to eat except for listed restrictions on striped bass, bluefish, and weakfish
- Be aware of advice for fish from the market or restaurant. See market advice on page 3
- Your exposure to PCBs in fish can be reduced by trimming away fat and cooking fish on a rack so that fat drips away.

WHERE CAN I GET MORE INFORMATION?

More specific fact sheets can be obtained by calling 1-877-458-FISH (3474), or by going to the DPH WEB SITE: www.ct.gov/dph/fish

Health Questions?
Call CTDPH toll-free at 1-877-458-FISH (3474)

Questions about fishing in Connecticut?
Call CTDEP at 860-424-3474.
www.ct.gov/dep/fishing

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IMERC Fact Sheet Mercury Use in Thermostats

Latest Update: January 2010

“Mercury Use in Thermostats” summarizes the use of mercury in thermostats found in residences, businesses, and industrial settings, including thermostats sold as stand-alone units and as components within heating and cooling equipment. This Fact Sheet covers all types of thermostats that contain mercury in the individual devices; the total amount of mercury in all of the devices that were sold as new in the U.S. in 2001, 2004, and 2007; companies that have phased-out the products’ manufacture and sale; and non-mercury alternative devices.

The information in this Fact Sheet is based on data submitted to the state members of the Interstate Mercury Education and Reduction Clearinghouse (IMERC)¹ including Connecticut, Louisiana, Maine, Massachusetts, New Hampshire, New York, Rhode Island, and Vermont. The data is available online through the IMERC Mercury-Added Products Database.²

A number of important caveats must be considered when reviewing the data summarized in this Fact Sheet:

- This Fact Sheet does not include mercury thermostats used in cooking ranges; those thermostats are covered in the fact sheet entitled, *Mercury Use in Gas & Electric Cooking Ranges & Other Cooking Equipment*.³
- The information may not represent the entire universe of mercury-containing thermostats sold in the U.S. The IMERC-member states continuously receive new information from mercury-added product manufacturers, and the data presented in this Fact Sheet may underestimate the total amount of mercury sold in this product category.
- The information summarizes mercury use in thermostats sold nationwide since 2001. It does not include mercury thermostats sold prior to January 1, 2001 or exported outside of the U.S.
- Reported data includes only mercury that is used in the product, and does not include mercury emitted during mining, manufacturing, or other points in the products’ life cycle.

Mercury Components in Thermostats

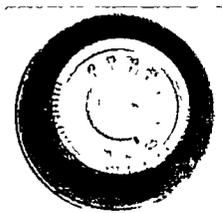
Mercury thermostats use mercury switches to sense and control room temperature through communication with heating, ventilating, and air conditioning (HVAC) equipment.

¹ IMERC <http://www.newmoa.org/prevention/mercury/imerc/about.cfm>

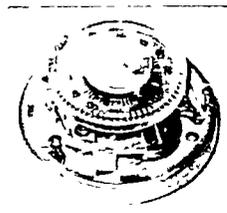
² Mercury-Added Products Database <http://www.newmoa.org/prevention/mercury/imerc/notification/index.cfm>

³ Mercury Use in Gas and & Electric Cooking Ranges and Other Cooking Equipment Fact Sheet http://www.newmoa.org/prevention/mercury/imerc/FactSheets/factsheet_ranges.cfm

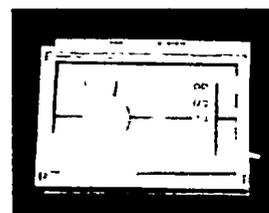
Mercury thermostats contain bimetal coils that contract and expand with room temperature. When the coil contracts or expands, it activates the mercury switch, which opens or closes a circuit to make the furnace, heat pump, or air conditioner turn on or off. A mercury thermostat may contain one or more switches, depending on how many heating and cooling systems it activates.



Mercury Thermostat
Source NEWMOA



Mercury Switch inside Thermostat
Source Wikipedia



Mercury Thermostat
Source NEWMOA

According to the Thermostat Recycling Corporation (TRC), mercury thermostats contain an average of 1.4 mercury switches (i.e., components), with a minimum of 2.8 grams of elemental mercury per switch. Therefore, the total amount of mercury used in a thermostat is approximately four grams. Industrial-sized thermostats may have multiple switches and thus have reported higher amounts of mercury. Some examples of industrial thermostats reported by manufacturers include a low-voltage multi-stage wall thermostat and a heat pump thermostat.

Mercury Use in Thermostats

Table 1 presents the total amount of mercury contained in mercury thermostats sold in the U.S. in years 2001, 2004, and 2007. This total includes thermostats used in residences, businesses, and industrial settings, including thermostats sold as stand-alone units and as components within heating and cooling equipment. More detailed information on the 2001 and 2004 data can be found in the report, *Trends in Mercury Use in Products. Summary of the IMERC Mercury-added Products Database*, June 2008.⁴ The 2007 data is taken from a NEWMOA presentation, *Trends in Mercury Use in Products: Analysis of the IMERC Mercury-added Products Database*, November 17, 2009.⁵

⁴ Trends in Mercury Use in Products Summary of the IMERC Mercury-Added Products Database: www.newmoa.org/prevention/mercury/imerc/pubs/reports.cfm

⁵ Trends in Mercury Use in Products Analysis of the IMERC Mercury-added Products Database: www.newmoa.org/prevention/mercury/conference/sciandpolicy/presentations/Wienert_Session3B.pdf

Table 1: Total Mercury Sold in Thermostats in the U.S. (pounds)			
Product	Total Mercury 2001	Total Mercury 2004	Total Mercury 2007
Thermostats	29,253 (14.6 tons)	28,901 (14.5 tons)	7,727 (3.9 tons)

[Note: 453.6 grams = 1 pound; All numbers are rounded to the nearest whole number.]

As shown in Table 1, the total amount of mercury in thermostats sold in the U.S. during calendar years 2001 and 2004 was 14.6 tons and 14.5 tons, respectively. This represents a decrease of 0.1 tons, or approximately 1 percent over the three-year period. In 2007, the total amount of mercury in thermostats sold in the U.S. was 3.9 tons, a decrease of over 10 tons than the previous reporting period in 2004. Mercury use in thermostats has decreased approximately 73 percent since 2001.

Since 2001, many states have passed legislation restricting the sale of mercury-added thermostats. As more state laws go into effect, mercury use in this product category will likely continue to decline. Another reason for the significant decrease could be that non-mercury programmable thermostats are rapidly increasing in popularity. These electronic thermostats are set to heat and cool based on a pre-programmed schedule, which helps conserve energy.

Phase-Outs & Product Bans on the Sale of Mercury Thermostats

The following IMERC-member states currently have restrictions on the sale and/or distribution of mercury-containing thermostats: California, Connecticut, Illinois, Louisiana, Maine, Massachusetts, Minnesota, New Hampshire, Rhode Island, Vermont, and Washington. Additional states that restrict the sale or use/installation of mercury thermostats include: Iowa, Michigan, Montana, Ohio, Oregon, and Pennsylvania.⁶ In response to these mercury product bans and phase-outs, many companies have ceased manufacturing mercury thermostats and/or stopped selling these products in these states.

The National Electrical Manufacturer's Association (NEMA) is a trade association that represents the major U.S. thermostat manufacturers, including: General Electric, Honeywell, and White-Rodgers. In October 2009, NEMA reported to the IMERC-member states that all three companies – General Electric, Honeywell, and White-Rodgers – have stopped manufacturing mercury-added thermostats.

The following is a list of additional companies and thermostat products that have reportedly been eliminated from the U.S. market since 2001:

⁶ State Mercury-Added Product Ban Guidance: www.newinoa.org/prevention/mercury/imerc/productban.cfm
 State Mercury-Added Product Phase-Out Guidance
www.newinoa.org/prevention/mercury/imerc/phaseoutinfo.cfm

Marvair reported to IMERC-member states that they discontinued their line of air conditioning units with mercury thermostats in December 2003.

Coachmen Recreational Vehicles reported to IMERC-member states that they phased-out mercury thermostats in their recreational vehicles in April 2004.

Sunline reported to IMERC-member states that they have not had any mercury-added products, including mercury thermostats, in their recreational vehicles since July 2004.

Princo Instruments, Inc. reported to the IMERC-member states that they phased-out the manufacture and sale of all products containing mercury, including their mercury-added thermostats as of January 22, 2007.

PSG Controls, Inc. reported to IMERC-member states in 2008 that they do not sell mercury thermostats in any of the IMERC states, as of their respective product ban dates. They do, however, continue to sell mercury thermostats to states without such bans.

Non-Mercury Alternatives

There are non-mercury alternatives that may be suitable for replacing mercury thermostats. These include electromechanical (i.e., air-controlled, reed switch, vapor-filled diaphragm, snap-switch) and electronic programmable thermostats (i.e., digital). Many factors should be considered when switching to a non-mercury thermostat, including the relative costs, availability, and product effectiveness.

Many of the non-mercury alternatives are readily available from wholesale and retail heating and plumbing supply stores at a generally comparable price as mercury thermostats. Programmable thermostats are more expensive than traditional mercury thermostats, but can save energy and money, by enabling users to automatically adjust the temperature or turn off the heat or air conditioning depending on the time of day.

Collection and Recycling Programs for Mercury Thermostats

The Thermostat Recycling Corporation's (TRC) thermostat collection program is an industry-sponsored private corporation, originally established by thermostat manufacturers General Electric, Honeywell, and White-Rodgers. TRC facilitates the collection of all brands of used, wall-mounted mercury-switch thermostats so that the mercury can be separated and recycled. For more information on the TRC program, visit: www.thermostat-recycle.org/.

Collection through the TRC program takes place through Heating, Ventilation, and Air Conditioning (HVAC) wholesale outlets, HVAC contractors, and more recently through local household hazardous waste facilities throughout the U.S. Participation is voluntary, and the companies and agencies collecting the thermostats pay a one-time fee of \$25.00 to obtain a

collection bin to store and ultimately transport the thermostats for recycling. The elemental mercury from the thermostats collected through this program is reclaimed.

In addition to the TRC program, some states, including Iowa, Maine, New Hampshire, Oregon, and Vermont have legislation requiring thermostat manufacturers to establish collection programs for recycling out-of-service mercury thermostats. Maine and Vermont also require these manufacturers to pay a financial incentive to persons recycling mercury thermostats. This is a fairly new initiative in both states, but preliminary collection results show that the incentive is playing a key role in increasing mercury thermostat recycling rates.

Many other states, including California, Illinois, Maine, Massachusetts, Minnesota, New Hampshire, New York, Rhode Island, and Vermont have laws restricting or fully prohibiting the disposal of mercury-added thermostats in household trash. As a result, these states are actively working to improve mercury thermostat collection and recycling – either by promoting the TRC's mercury thermostat collection and recycling program; or through other local, state, or regional mercury thermostat collection programs.

For more information on the state programs and legislation pertaining to the collection of mercury thermostats, go to:

www.newnoa.org/prevention/mercury/ThermostatRecyclingReport2008.pdf.

Citations

- 1 *Toward the Virtual Elimination of Mercury from the Solid Waste Stream* Rep The Department of Environmental Protection, 2000 Web <http://www.ct.gov/dep/lib/dep/mercury/gen_info/mercury.pdf>
- 2 *Inventory of Anthropogenic Mercury Emissions in the Northeast* Rep NESCAUM, 2005 Web <<http://mpp.cdearn.org/wp-content/uploads/2008/08/finalhgreport.pdf>>
- 3 Skumatz, Ph D , Lisa A. *Mercury-Containing Thermostats Estimating Inventory and Flow from Existing Residential & Commercial Buildings A Study to Meet Requirements for State of California Thermostat Recycling Legislation* Rep Skumatz Economic Research Associates, Inc (SERA), 28 Dec 2009 Web <http://www.dtsc.ca.gov/HazardousWaste/upload/TRCThermostat-Report-12_09.pdf>
- 4 Skumatz, Ph D , Lisa A. *Mercury-Containing Thermostats Estimating Inventory and Flow from Existing Residential & Commercial Buildings A Study to Meet Requirements for State of California Thermostat Recycling Legislation* Rep Skumatz Economic Research Associates, Inc (SERA), 28 Dec 2009 Web <http://www.dtsc.ca.gov/HazardousWaste/upload/TRCThermostat-Report-12_09.pdf>
- 5 Thermostat Recycling Corporation *Thermostat Recycling Corporation 2008 Annual Report* Rep 2009 Pnnt

CONNECTICUT GENERAL ASSEMBLY
HOUSE PROCEEDINGS. VOL. 55 PT. 14
(2012) P. 4771 - 4836 FICHE 29

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HOUSE OF REPRESENTATIVES

578
May 4, 2012

THE CLERK:

The House of Representatives is voting by roll call. Members to the chamber. The House is taking a roll call vote. Members to the chamber please.

DEPUTY SPEAKER GODFREY:

Have all the members voted? Have all the members voted? If so, the machine will be locked and the Clerk will take a tally.

And, the Clerk will announce the tally.

THE CLERK:

Senate Bill 40 as amended by Senate "A" and "B",
in concurrence with the Senate.

Total number voting	139
Necessary for adoption	70
Those voting Yea	127
Those voting Nay	12
Those absent and not voting	12

DEPUTY SPEAKER GODFREY:

The Bill as amended is passed in concurrence.

Will the Clerk please call Calendar 427.

THE CLERK:

On Page 24, Calendar 427, substitute for Senate
Bill Number 350, AN ACT REQUIRING THE ESTABLISHMENT OF
MANUFACTURER MERCURY THERMOSTAT COLLECTION AND

smj/law/djp/gbr
HOUSE OF REPRESENTATIVES

579
May 4, 2012

RECYCLING PROGRAMS. Favorable report by the Committee on the Environment.

DEPUTY SPEAKER GODFREY:

The distinguished Vice Chairman of the Energy Committee, Representative Reed.

REP. REED (102nd):

Good evening, Mr. Speaker.

DEPUTY SPEAKER GODFREY:

Good evening.

REP. REED (102nd):

I move for acceptance of the Joint Committee's favorable report and passage of the Bill.

DEPUTY SPEAKER GODFREY:

Question is on acceptance and passage. Will you explain the Bill, please ma'am?

REP. REED (102nd):

Mr. Speaker, this Bill requires that manufacturers of mercury thermostats establish a collection and recycling program by April 1, 2013 and also beginning July 1, 2014, manufacturers who don't comply, will not be able to sell thermostats of any kind in Connecticut. So, that's going to be a sanction. It's been well established that too much mercury, mercury in the environment is dangerous to

the public health and this is a Bill that has been endorsed by the industry, there's no fiscal note, it's a good Bill and I urge my colleagues to pass it. Thank you, Mr. Speaker.

DEPUTY SPEAKER GODFREY:

Thank you, ma'am.

Representative Candelora.

REP. CANDELORA (86th):

Thank you, Mr. Speaker. I rise in support of this Bill. I think it represents a good attempt at addressing an important environmental concern in Connecticut and taking manufacturing needs into consideration as well. Thank you, Mr. Speaker.

DEPUTY SPEAKER GODFREY:

Thank you, sir.

Will you remark further on the bill? Will you remark further on the Bill?

Representative Reed.

REP. REED (102nd):

Mr. Speaker, I would request that the Clerk call 3382 -- 3380 Senate "A".

DEPUTY SPEAKER GODFREY:

Clerk is in possession of LCO Number 3380, previously designated as Senate Amendment Schedule

"A". Will the Clerk please call.

THE CLERK:

LCO 3380, Senate "A", offered by Senator Meyer.

DEPUTY SPEAKER GODFREY:

Gentle woman as asked to leave the chamber to summarize. Is there any objection. Hearing none, Representative Reed.

REP. REED (102nd):

Mr. Speaker, Senate "A" adds a provision specifying that the solid waste disposal facility owners and operators will not violate the program or disposal requirements under certain circumstances. It adds an accuracy certification to the manufacturers self evaluation which is a very important component. The manufacturers will be collecting and collecting data that they will then give to DEEP; DEEP will analyze the data and report back to us in 2017 and let us know how the program is working, how effective it is and allow us to make a determination whether it needs to be fine tuned or not. Mr. Speaker, thank you. I move adoption of the amendment, Mr. Speaker.

DEPUTY SPEAKER GODFREY:

Thank you, madam. Question is on adoption of Senate Amendment Schedule "A". Will you remark?

smj/law/djp/gbr
HOUSE OF REPRESENTATIVES

582
May 4, 2012

Representative Chapin.

REP. CHAPIN (67th):

Thank you, Mr. Speaker. Mr. Speaker, I also rise in support of the amendment which is a strike all amendment. I think one of the most important provisions in the bill is that we actually are making it illegal for people to throw mercury into the waste stream from these thermostats. That's something that, quite frankly, I was surprised wasn't already in statute and I think it's a very important provision in this Bill as are all the other provisions and I would encourage my colleagues to support it. Thank you, Mr. Speaker.

DEPUTY SPEAKER GODFREY:

Thank you, sir.

Will you remark further on Senate Amendment Schedule "A"? Will you remark further on Senate Amendment Schedule "A"?

If not, let me try your minds. All those in favor signify by saying Aye.

REPRESENTATIVES:

Aye.

DEPUTY SPEAKER GODFREY:

Opposed Nay.

The Ayes have it.

The amendment is adopted.

Will you remark further on the Bill as amended?

Will you remark further on the Bill as amended?

If not, staff and guests please come to the well of the House. Members take your seats. The machine will be open.

THE CLERK:

The House of Representatives is voting by roll call. Members to the chamber. The House is taking a roll call vote. Members to the chamber please.

DEPUTY SPEAKER GODFREY:

Have all the members voted? Have all the members voted? If so, the machine will be locked and the Clerk will take a tally.

And, the Clerk will announce the tally.

THE CLERK:

Senate Bill 350, as amended by Senate "A", in concurrence with the Senate.

Total number voting	141
Necessary for adoption	71
Those voting Yea	139
Those voting Nay	2
Those absent and not voting	10

smj/law/djp/gbr
HOUSE OF REPRESENTATIVES

584
May 4, 2012

DEPUTY SPEAKER GODFREY:

The Bill is passed in concurrence.

Mr. Clerk, 473.

THE CLERK:

On Page 32, Calendar 473, substitute for Senate Bill Number 150, AN ACT CONCERNING FAMILY AND MEDICAL LEAVE BENEFITS FOR CERTAIN MUNICIPAL EMPLOYEES.

Favorable report by the Committee on Appropriations.

DEPUTY SPEAKER GODFREY:

Distinguished Chairman of the Labor Committee,
Representative Zalaski.

REP. ZALASKI (81st):

Thank you, Mr. Speaker. Mr. Speaker, I move for acceptance of the Joint Committee's favorable report and passage of the Bill in concurrence with the Senate.

DEPUTY SPEAKER GODFREY:

Question is on acceptance and passage in concurrence. Will you explain the Bill, please sir?

REP. ZALASKI (81st):

Yes, Mr. Speaker, thank you. The Bill reduces the number of work hours school paraprofessionals in educational settings need to qualify for unpaid family medical leave from 1,250 hours to 950 hours.

S - 639

**CONNECTICUT
GENERAL ASSEMBLY
SENATE**

**PROCEEDINGS
2012**

**VOL. 55
PART 4
942 - 1311**

cah/med/gbr
SENATE

159
April 18, 2012

Those voting Nay 11
Those absent and not voting 1

THE CHAIR:

The bill is passed.

Will you remark further?

Mr. Clerk.

THE CLERK:

That is page 13, Calendar 271, Substitute for Senate
Bill Number 350, AN ACT REQUIRING THE ESTABLISHMENT OF
MANUFACTURER OF MERCURY THERMOSTAT COLLECTION AND
RECYCLING PROGRAMS, favorable report of the committee
on Environment.

THE CHAIR:

Good evening, Senator Meyer.

SENATOR MEYER:

Good evening, Governor, nice to see you.

THE CHAIR:

Tonight you are a senator, this afternoon, pastor.

SENATOR MEYER:

Thank you --

THE CHAIR:

It's amazing how it changes.

SENATOR MEYER:

Thank you. I removed my collar.

THE CHAIR:

Thank you.

cah/med/gbr
SENATE

160
April 18, 2012

SENATOR MEYER:

Madam President, I move acceptance of the committees' joint and favorable report and move passage of the bill with an opportunity to summarize.

THE CHAIR:

On passage and -- and approval, please remark, sir.

SENATOR MEYER:

Thank you.

Madam President, the Clerk has an amendment to this bill, which is actually a strike-all amendment, LCO 3380, and would the -- Clerk -- Clerk, please call that amendment.

THE CHAIR:

Mr. Clerk.

THE CLERK:

LCO Number 3380, Senate "A" offered by Senator Meyer.

SENATOR MEYER:

Madam President, I move adoption and seek leave to summarize.

THE CHAIR:

The motion is on adoption and please summarize, sir.

SENATOR MEYER:

Colleagues, this bill is in the great tradition and pattern of bills that have come before this body that seek to dispose of materials -- of certain materials. You recall some years ago, we passed a bill to dispose of electronic waste, again, within manufacturers having responsibility for doing that. It was last year that we passed a bill in which paint manufacturers took on a responsibility for disposing of -- of half used paint cans. We're now turning to

cah/med/gbr
SENATE

161
April 18, 2012

mercury thermostats and the bill -- the bill before you today, the strike-all amendment is actually a bill -- a national model bill. It was given to us by one of the manufacturers of these thermostats, and that is the great Honeywell Company. And this -- this bill that's before us today has been passed in about eight other states, and as I said, is a model bill.

What it essentially does like -- like the Paint Bill and the Electronic Waste Bill is it provides that the manufacturers shall establish a mercury thermostat collection and recycling program and make a collection -- a collection container available to people who want to dispose of their mercury thermostats. There's not to be any charge for that.

The bill also provides that the manufacturers will seek to educate people in Connecticut about the dangers of mercury and the importance of disposing of -- of mercury thermostats in a safe -- safe manner.

The bill also provides that -- that the Department of Energy and Environmental Protection will look over the program after several years and will report to us with respect to this success or nonsuccess of the program so that we can make whatever amendments we would like.

So that is -- that is the essence of the bill. I want to thank the Honeywell Corporation, which happens to be a constituent in my district for their input in that, also their advocate here in Hartford, Josh Hughes and -- and I urge your support and if anybody has any questions, I'd be happy to try to answer them.

THE CHAIR:

Senator, I'm sorry -- Senator -- sorry, Senator Roraback -- excuse me.

SENATOR RORABACK:

Thank you, Madam President.

And through you, if I may just a couple of questions to Senator Meyer.

THE CHAIR:

cah/med/gbr
SENATE

162
April 18, 2012

Please proceed, sir.

SENATOR RORABACK:

Thank you, Madam President.

I rise because I believe this bill is a good bill, but I'm hoping that Senator Meyer can help me through a series of questions better understand, kind of, the practical workings of the bill.

THE CHAIR:

Please proceed, sir.

SENATOR RORABACK:

Thank you, Madam President.

I think it's widely understood that mercury is something that we do not wish to have entering our environment in uncontrolled ways, and I think it's also widely understood that there was a time when it was common practice for mercury to be used in thermometers and in thermostats. In this bill, through you, Madam President, to Senator Meyer, I think deals exclusively with thermostats; is that correct? Through you, Madam President.

THE CHAIR:

Senator Meyer.

SENATOR MEYER:

Through you, Madam President. That's correct.

THE CHAIR:

Senator Roraback.

SENATOR RORABACK:

And so is the bill's reach intended to cover thermostats used in residential applications, as well as commercial and industrial applications --

cah/med/gbr
SENATE

163
April 18, 2012

SENATOR MEYER:

Through you, Madam President, to Senator Roraback.

It does. It covers thermostats, whether they be in a home or in a -- in a factory or in a business office.

THE CHAIR:

Senator Roraback.

SENATOR RORABACK:

Thank you, Madam President.

And is -- is the notion that people over time replace, upgrade their thermostats and when you've got an old thermostat, you look at it and you wonder what do I do with this thing? Through you, Madam President to Senator Meyer.

THE CHAIR:

Senator Meyer.

SENATOR MEYER:

Yes, through you, Madam President.

That's correct and actually starting at line 104, there's a process by which thermostats in buildings can be disposed of.

THE CHAIR:

Senator Roraback.

SENATOR RORABACK:

And thank you, Madam President.

I'm just trying to understand as a practical matter. If one of Senator Meyer's constituents or one of my constituents is staring at an old thermostat, what are they going to do with it? Are they going to -- are they -- this law is going to require the manufacturer

cah/med/gbr
SENATE

164
April 18, 2012

to create a recycling program, but are they going to have somewhere in Litchfield County where my constituent can take the thermostat? Do they put it in the mail, do they take it to their local recycling center? Through you, Madam President to Senator Meyer.

THE CHAIR:

Senator Meyer.

SENATOR MEYER:

Yes, through you, Madam President, to Senator Roraback.

The concept of this bill is that the manufacturers will create the system of disposal, and they will create the containers in which the mercury thermostats will be disposed. In other words, it leaves a lot of discretion to the manufacturers to do this. This bill has been negotiated with the manufacturers. I mentioned before it's a model bill, and it was really given to us by the Honeywell Corporation. And -- and it gives -- it gives some time for the manufacturers to prepare that -- that program of collection and recycling.

THE CHAIR:

Senator Roraback.

SENATOR RORABACK:

Thank you, Madam President.

So, I guess, when I look at the bill it looks like the jury's, kind of, still out in terms of how precisely this process will roll out. Will every town hall have a -- I think of the Lion's Club, right, the old post office boxes, right, the yellow ones, where you could put your used eyeglasses and everyone, kind of, knew when you had an old pair of eyeglasses, that's where you went.

And what I'm understanding from Senator Meyer, that as this bill is implemented, Honeywell and other

cah/med/gbr
SENATE

165
April 18, 2012

manufacturers are going to figure out a way to make it convenient for those who are disposing of thermostats to find a place to put them.

Through you, Madam President to Senator Meyer, is that what's in -- what's contemplated?

THE CHAIR:

Senator Meyer.

SENATOR MEYER:

Through you, Madam President. That is what's contemplated. That is what's worked in other states. We've had remarkable success in states, like, Pennsylvania, Rhode Island and Maryland where this very bill, under the coordination of the manufacturers, have had a recycling program. For example, in -- in Pennsylvania, there was a 50 percent increase in thermostats, mercury thermostats that were submitted for disposal. In Rhode Island, it was 150 percent increase. So this -- this has been a model of success. Even though it doesn't have all the mandates that you might otherwise think would be desirable.

THE CHAIR:

Senator Roraback.

SENATOR RORABACK:

Thank you, Madam President.

I appreciate Senator Meyer's hard work on this issue, and I appreciate the manufacturers rising to the occasion. I think the responsibility that all of us share, Madam President, is the responsibility of educating Connecticut residents, business owners, anyone who might come across an old thermostat. It's our job to let them know that there's a responsible way to dispose of this, and we need to work together to raise public awareness to make sure none of these thermostats end up in our -- in our solid waste facilities.

cah/med/gbr
SENATE

166
April 18, 2012

So I appreciate the Chamber's indulgence. I appreciate the opportunity to learn more about this important bill.

Thank you, Madam President.

SENATOR MEYER:

Thank you, Senator Roraback.

THE CHAIR:

Thank you, Senator Roraback.

Will you remark? Will you remark?

If not, all in favor of the amendment --

SENATOR MEYER:

All in favor of the amendment.

THE CHAIR:

All in favor of the amendment please say aye.

SENATORS:

Aye.

THE CHAIR:

Opposed?

The amendment passes.

SENATOR MEYER:

Okay. The amendment is a strike-all amendment, Madam President. And if there's no further discussion or objection, I'd ask that it go onto our Consent Calendar.

THE CHAIR:

Seeing no objection, so ordered, sir.

cah/med/gbr
SENATE

237
April 18, 2012

Madam President, if we might call now to have the Clerk read the items on the Consent Calendar and then to move to a vote on the Consent Calendar.

THE CHAIR:

Mr. Clerk, will you please read the items on the Consent Calendar.

THE CLERK:

On page 1, Calendar 300, House Joint Resolution Number 78; page 1, Calendar 301, House Joint Resolution Number 79.

Page 2 Calendar 302, House Joint Resolution Number 80; page 2, Senate Bill -- Calendar Number 64, Senate Bill 37.

Page 3, Calendar 89, Senate Bill 56.

Page 4, Calendar 110, Senate Bill 184; page 4, Calendar 91, Senate Bill Number 276.

Page 5, Calendar 127, Senate Bill 320.

Page 8, Calendar 203, Senate Bill 408.

Page 9, Calendar 226, Senate Bill 411; also, on page 9, Calendar 224, Senate Bill Number 339.

Page 10, Calendar 232, Senate Bill Number 186.

On page 11, Calendar 238, House Bill 5250.

On page 12, Calendar 258, Senate Bill 340; also on page 12, Calendar 259, Senate Bill 157; page 12, Calendar 265, Senate Bill 176.

Page 13, Calendar 271, Senate Bill 350; page 13, Calendar 273, Senate Bill 293; page 13, Calendar 274, Senate Bill 294.

Page 14, Calendar 285, Senate Bill 404.

Page 15, Calendar 296, Senate Bill Number 307.

cah/med/gbr
SENATE

238
April 18, 2012

And page 24, Calendar 132, Senate Bill 337.

THE CHAIR:

The Senate will stand at ease for a second.

(Chamber at ease.)

THE CHAIR:

Okay. Those are the items listed. The machine will be open.

Mr. Clerk, will you please call for a roll call vote on the Consent Calendar. Thank you.

THE CLERK:

Immediate roll call has been ordered in the Senate.
Senators please return to the chamber. Immediate roll call has been ordered in the Senate.

THE CHAIR:

Have all members voted? If all members voted, the machine will be locked.

And Mr. Clerk, will you please call the tally.

THE CLERK:

On today's Consent Calendar.

Total Number Voting	35
Necessary for passage	19
Those voting Yea	35
Those voting Nay	0
Those absent and not voting	1

THE CHAIR:

Consent Calendar has passed.

Senator Looney.

SENATOR LOONEY.