Date: March 23, 2015

Case: Notice of Proposed Rulemaking for Hearth Products Standards Meeting

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U. S. DEPARTMENT OF ENERGY PUBLIC MEETING

NOTICE OF PROPOSED RULEMAKING FOR HEARTH PRODUCTS STANDARDS MEETING

U.S. Department of Energy
1000 Independence Avenue, SW
Washington, D.C. 20585
Room No. 8E-089

Monday, March 23, 2015
9:00 a.m.

1 Appearances for Department of Energy meeting.
2 Doug Brookman - Public Solutions
3 John Cymbalsky - DOE
4 Ashley Armstrong - DOE
5
6 Timothy Ballo - Earthjustice
7 Leslie S. Bortz - RH Peterson Co.
8 Robert J. Dischner - RH Peterson Co.
9 Michael A. Caldarera - National Propane Gas
10 Association
11 Ryan Carroll - Hearth, Patio & Barbecue Association
12 Rachel Feinstein - Hearth, Patio & Barbecue
13 Association
14 Jack H. Goldman - Hearth, Patio & Barbecue
15 Association
16 John A. Hodges - Wiley Rein LLP
17 Caroline Davidson-Hood - Air-Conditioning, Heating &
18 Refrigeration Institute
19 James E. Houck - Technical Consultant - Energy and
20 Environment
21 Jim Kupsh - SIT Controls USA Inc.
22 Daniel Lapato - American Public Gas Association

1 Jessica Lewis - Navigant
2 Adam Darlington - Navigant
3 Justin Elszasz - Navigant
4 Michael Rivest - Navigant
5 Barton Day - Law Offices of Barton Day, PLLC
6 David Delaquila - Aquila Consulting LLC
7 Dana Moroz - Napoleon Products
8 Tim Perrin - Polsinelli
9 Theodore E. (Rett) Rasmussen, III - Rasmussen Gas
10 Logs & Grills
11 Raymond T. Reott - Reott Law Offices, LLC
12 Steven J. Rosenstock - Edison Electric Institute
13 John Schlachter - Maxitrol Company
14 Harry A. Sporidis - Polsinelli
15 Frank Stanonik - Air-Conditioning, Heating, &
16 Refrigeration Institute
17 Sue Walker - Empire Comfort Systems
18 Gregory Rosenevist - Lawrence Berkeley National Lab
19 David Siap - Lawrence Berkeley National Lab
20
21
22

P R O C E E D I N G S

MR. BROOKMAN: Please take your seats we will begin. Good morning everyone welcome, glad to see you here this morning. This is the Notice of Proposed Rulemaking Public Meeting on Energy Conservation Standards for Hearth Products. Today is March 23, 2015 here in the Forrestal Building in Washington, D.C. at the Department of Energy.

My name is Doug Brookman of Public Solutions Baltimore nice to see you here this morning. We are going to start with welcoming remarks from Ashley Armstrong.

MS. ARMSTRONG: Good morning everyone, I would just like to welcome you to the public meeting. We are glad to have such a good turnout and we hope that everyone will participate throughout the date. We are here to at least give you an overview of our proposal and obviously we welcome you to speak up, ask questions, say comments as that is the purpose of this public meeting and we thank you all for coming today.

MR. BROOKMAN: We always start with

introductions. Start to my immediate left and you can get used to turning the microphone both on and off please say your name and organizational affiliation.

MR. GOLDMAN: Jack Goldman, Hearth, Patio and Barbecue Association.

MR. CARROLL: Ryan Carroll with the Hearth, Patio and Barbecue Association.

MR. DAY: Barton Day Counsel for HPBA.

MR. HODGES: John Hodges Wiley Rein, Counsel for Natural Propane Gas Association.

MR. CALDARERA: Mike Caldarera, National Propane Gas Association.

MR. DIRCKS: Peter Dircks with Hearth and Home Technologies.

MR. RASMUSSEN: Ratt Rasmussen with Rasmussen Gas Logs and Grills.

MR. BORTZ: Leslie Bortz with Robert H. Peterson Company.

MR. SKOLNICK: Steve Skolnick, Skolnick Associates and Mid Atlantic Hearth Products Association.

MR. SCHLACHTER: John Schlachter with Maxitrol Company.

MR. STANONIK: Frank Stanonik, Air Conditioning Refrigeration Institute.

MR. LAPATO: Dan Lapato, American Public Gas Association.

MS. WALKER: Sue Walker, Empire Comfort Systems.

MR. ROSENSTOCK: Steve Rosenstock, Edison Electric Institute.

MR. KUPSH: Jim Kupsh, SIT Controls.

MR. STAS: Eric Stas, DOE General Counsel's office.

MS. ARMSTRONG: Ashley Armstrong, DOE.

MR. BROOKMAN: Let's see if that microphone over there works.

MR. ROSENQUIST: Greg Rosenquist, Lawrence Berkeley National Laboratory.

MR. RIVEST: Mike Rivest, Navigant Consulting.

MR. SIAP: David Siap, Lawrence Berkeley National Laboratory.

MR. DARLINGTON: Adam Darlington, Nagivant Consulting.

MR. ELSZASZ: Justin Elszasz, Navigant Consulting.

MS. LEWIS: Jessica Lewis, Navigant Consulting.

MR. BROOKMAN: If those of you in the back if you will just stand and introduce yourself please this will not be on the record but we will have business cards so we will know who is here, please.

MR. HOUCK: Jim Houck, an Independent Consultant.

MR. BROOKMAN: Thank you.

MR. DELAQUILA: Dave Delaquila, consultant from Action Company.

MS. FEINSTEIN: Rachel Feinstein, Hearth, Patio and Barbeque Association.

MR. REOTT: Raymont Reott, R. H. Peterson Company

MR. PERRIN: Tim Perrin, Consultant for ACE

MR. BALLO: Tim Ballo with EarthJustice.

MR. DISCHNER: Bob Dischner, RH Peterson and Company.

MR. BROOKMAN: Okay and once again thanks to all of you for being here for an early start on this day. Nice to see so many folks here, all of you received a packed of information I hope and if you look on page 3 there is an agenda which I will do a very brief review.

Immediately following this agenda review and some preliminary information there is an opportunity for opening comments, brief summary statements here at the outset as we get this meeting going. From there moving on to describing the regulatory and authority rulemaking overview and then moving on market technology assessment, we will take a break mid-morning around about 10:15 or 10:30 or so. Returning from the break engineering analysis, markups, energy use characterization, lifecycle costs and payback period analysis.

We will take lunch mid-day 12:30-ish. Returning from lunch shipments, national impact analysis, regulatory impact analysis, manufacturing

impact analysis and we will take a mid-afternoon break and then following that or whenever we get there utility impact analysis, environmental impact analysis, indirect employment analysis and at the end of the day whenever that is another opportunity for closing remarks.

Issues that you wish to bring to the floor, issues that haven't been covered sufficiently during the course of this meeting today. That's the general plan this is the framework that the Department of Energy observes consistently. Questions and comments on the agenda. Seeing none I would ask for your consideration each time you speak please say your name, please say your name each time you speak.

There will be a complete transcript of this meeting made available. I would ask you to speak one at a time please if you could try to be concise share the air time, there's a lot to be covered here in this day. If you could keep the focus here, please turn your cell phones on silent mode.

You are already getting used to turning these microphones on and off and webinar participants we welcome you, so glad you could join us via the web, the Department of Energy is trying hard to make sure all of these meetings are accessible via the web. If you would try to keep your telephone on mute and raise your hand in the software provided to be recognized to speak and then when we unmute you and I'll recognize you to speak, then we should be able to hear you in the room. That's been working fairly well recently and hopefully we won't have any glitches today with the technology.

I think that is the bulk of what I am supposed to cover except that I would encourage all participants, everyone here in the room and also those joining us via the web to send written comments following this meeting. I'm saying this especially for those that are joining via the web. We want to make certain that you participate as well as everyone who made it here into the meeting room itself.

And for the purpose of the public meeting to John Cymbalsky.

MR. CYMBALSKY: Thanks Doug, this is John Cymbalsky from DOE, program manager for appliance standards. The purpose of today's meeting is to present the procedural and analytical approaches to evaluate potential future energy conservation standards for residential hearth products and of course along the way we invite public comment on all of the slides you will see here today and of course any issue you might want to raise please feel free to raise it as we go through the slides.

And then as we go through the deck you will see the little issue boxes like you see up here on the slide. Basically you can comment on anything but these are the boxes you will see that DOE has highlighted as important points that it wishes some deeper comment on as we go along.

Comment period ends April 10th. Currently I understand there may be a request for an extension coming so please put that in writing and with reasons why you need a comment extension. So at this time we will take opening statements, I think we have a few in the que.

MR. BROOKMAN: Yes, let's do that. Brief opening statements, fairly brief I hope, summary statements here at the outset who would like to begin, okay is it Jack?

MR. GOLDMAN: Yes, my name is Jack Goldman. Good morning I'm President and CEO of the Hearth, Patio and Barbeque Association, the principal trade association representing the hearth products and barbeque industries in North America. HPBA's experience with appliance efficiency regulation has been difficult for both HPBA and DOE in large part because of the unique characteristics of hearth products and the fact that DOE has proceeded on the basis of inadequate information collection analysis and above all dialogue to inform the rulemaking process.

DOE's current rulemaking is deficient for the same basic reasons and it is my hope that this can be corrected starting today. As we will explain today significant errors compromise virtually every aspect of DOE's preliminary regulatory analysis and the proposed rule itself is premised on basic

1 misunderstandings with respect to the products and
2 the relevant technical and economic issues.
3 As a result, substantially more
4 information and analysis would be required to justify
5 any energy conservation standard and a new notice
6 providing an opportunity to comment on that new
7 information and analysis would be required before any
8 final rule could issue.
9 HPBA has thus requested that the proposed
10 rule be withdrawn and that the notice be treated as a
11 request for information. To facilitate comment for
12 that purpose HPBA is also requesting l) clarification
13 of the range of products at issue 2) additional
14 information and documentation concerning the basis
15 for DOE's regulatory analysis and 3) an extension of
16 the comment period to allow time for adequate review
17 of and comment on the relevant issues.
18 To facilitate comment it is particularly
19 important that DOE clarify the range of products at
20 issue. HPBA does not believe that DOE can lawfully
21 define a variety of different products as a single
22 "covered product" under EPCA. But let's put that

issue aside for the moment. We can't even speak intelligently about the issues raised by the proposed rule without a clear understanding of the range of products at issue. My hope is that we will be able to achieve some clarify on that when we discuss the first issue upon which DOE seeks comment, its proposed hearth products definition.

We will need to understand the intended scope of coverage before we can even begin to address how best to define the scope of coverage, let alone the technical and economic issues that may be relevant to this rulemaking in view of that scope of coverage.

There is one related point that I cannot emphasize strongly enough. DOE is attempting to regulate products that are unlike any appliances it has ever sought to regulate before. It is also seeking to regulate at one fell swoop products that are materially different from each other in a variety of ways that DOE has failed to recognize. This is a critical problem because most of the basic data required for regulatory analysis has never been

collected and DOE has again and again sought to overcome critical information gaps by assuming incorrectly that information with respect to one product can reasonably be applied to others.

Basic misunderstandings concerning the products and markets involved here have also been a source of many areas that undermine virtually every aspect of the technical and economic analysis underlying the proposed rule. We will address a number of these issues when we discuss the specific issues upon which DOE has requested comment.

The basic point I would like to emphasize now is that the technical and economic issues raised by the proposal can only be considered on a product by product basis. With that introduction I would like to turn to some HPBA's central concerns with respect to the proposed rule.

First the proposed rule is not directed at the issue of appliance efficiency nor is it designed to address standby mode energy consumption which as defined by USC Section 629 Subsection 41 is energy consumption that "cannot be switched off or

1 influenced by the user". Instead the proposed rule
2 is aimed solely at consumer behavior the presumed
3 tendency of consumers to leave pilot lights burning
4 unnecessarily.
5 It isn't clear that DOE has the authority
6 to regulate consumer behavior as an energy efficiency
7 issue and it certainly doesn't have the ability to do
8 so by sweeping a variety of different products
9 together in a single covered product category to be
10 regulated without any regard to the utility or
11 function because consumer behavior is the issue, two
12 of the specific "problems" that the rule is intended
13 to address do not even exist. In particular DOE's
14 review under Executive Orders 12866 and 13563 states
15 that the proposed rule is necessary because a "lack
16 of consumer information and difficulties in analyzing
17 relevant information" caused consumers to miss
18 opportunities to invest in more efficient products.
19 Similarly DOE suggests that misaligned incentives
20 between purchasers and users also result in failures
21 to invest in more efficient products.
22 In fact however, no investment in more

efficient products is required because consumers already have the ability to turn their pilot lights on and off as appropriate. DOE's only concern is that they might not do so. As a result we have a proposed rule that is designed not to make products more efficient, but to take control of pilot light operation completely out of the hands of consumers.

Second DOE simply presumes the existence and magnitude of the consumer behavior problem it seeks to address. I say presumes because there are no credible data demonstrating the existence and magnitude of the problem that DOE seeks to address. Instead the proposed rule is justified on the basis of a one page article citing data concerning a small number of gas fireplaces in service 20 years ago.

DOE simply assumes without any data -- DOE simply assumes without any data that the data cited in this article are relevant to the fireplaces that will be on the market five years in the future. Even more remarkably DOE assumes that these cited data are somehow relevant to completely different types of products such as patio heaters which it should go

without saying they are not.

In this regard DOE has completely failed to consider material differences in the ease of pilot light control, a factor that the article it relies on specifically identifies as important. There was a time when pilot lights could only be operated on hands and knees with a flashlight and screw driver, but the prevalence of such products has declined dramatically in the face of industry innovation and consumer demand for more user friendly pilot light controls.

Products with standing pilot lights are increasingly being equipped with features such as simple knob and push button controls and remote controls that allow consumers to turn pilot lights on or off with the touch of a button. The proposed rule does not even consider the impact that such controls have on consumer behavior nor does it consider the changes in consumer attitudes that have been driving increased demand for user-friendly pilot light controls. Consumers only seek such controls because they intend to use them.

Third, the proposed rule assumes that the problem with consumer behavior can only be modified by a federal design requirement completely eliminating the consumer's ability to control pilot light use. There is no basis for such an assumption because consumers have a direct financial incentive to avoid unnecessary energy consumption and the products currently available give them the ability to respond to that incentive without any need to accept increased product costs or decrease product performance because benefits can be obtained without sacrifice there is no reason to assume that consumer education would not be sufficient to induce consumers to act in their own economic interest.

The message is a simple one and requires easily prompted action. After all the products at issue don't work all but forgotten in closets or basement corners, instead they are prominently located in frequently occupied areas such as living rooms and family rooms where a burning pilot light provides a visible reminder of its presence every evening when the lights are turned off.

Others in the industry will speak more to other issues but suffice it to say that HPBA has many significant concerns about the proposed rule and the regulatory analysis that have produced it. As a result I am pleased that we are finally having an opportunity to discuss the issues and information relevant to the concerns that DOE seeks to address and my hope is that we can now begin to have the kind of dialogue required to address these concerns in a constructive way.

Thank you very much and I look forward to the rest of today's discussion.

MR. BROOKMAN: Okay any additional comments too at the outset, yes Mike please.

MR. CALDARENA: Good morning my name is Michael Caldarena. I am Vice-President of the Regulatory and Technical Services with the National Propane Gas Association. NPGA is the national trade association representing the U.S. propane industry. Our membership includes about 2800 companies in all 50 states about 2300 of those companies are retail propane marketers who deliver the fuel to the end use

customer including those customers who use hearth products.

Our members also are engaged in the production and wholesale of propane equipment and manufacturers and distributors of propane gas appliances and equipment as well. NPGA believes that DOE has issued this NOPR without observance of its own rulemaking procedures and without pre-proposal outreach and dialogue required by executive orders. Due to this the proposed rule we believe and the regulatory analysis, including the technical support document cannot support the issuance of a final rule at this time.

We therefore urge that DOE withdraw the proposed rule and treat this NOPR as a request for information. It should also clarify the potential scope of the rulemaking and make additional information and documentation available for review and comment. In light of this DOE also should suspend the April 10th deadline for public comment.

NPGA also urges that DOE eliminate coverage of propane fueled products from this or any

other related rulemaking to the extent that DOE conducts rulemaking it should limit its hearth product definition to natural gas fueled products and clarify that its proposed energy conservation standard should not apply to the propane fueled products.

In this regard DOE appears to recognize that its proposed standard cannot be justified for propane fueled products with its discussion on page 7101 of the NOPR where DOE acknowledges that propane is a "relatively expensive fuel". In addition propane is supplied for household use in cylinders or tanks of limited size or capacity. So as DOE recognizes in light of the discussion with regard to consumer behavior, consumers with propane products closely monitor their pilot light operation, hence there's no reason to presume that propane fueled products would be left with their pilot lights burning unnecessarily.

If DOE includes propane fueled products in the proposed hearth product definition the proposed energy conservation standard would apply to them and

subject these products to a completely unjustified regulatory burden. We intend to submit more substantive written comments by the comment deadline we thank you for your time.

MR. BROOKMAN: Thank you. Yes, please Peter?

MR. DIRCKS: Good morning my name is Peter Dircks, I'm Vice President of Marketing of Hearth & Home Technologies. We are headquartered in Lakeville, Minnesota and the market leader in the manufacture of wood, pellet and gas burning fireplaces, stoves and inserts. Our well-known brands include Heatilator, Heat and Glow, Quadrifire, Harmon and Pelpro. We employ over 1200 member owners and have manufacturing plants and distribution centers in Iowa, Minnesota, Pennsylvania, Washington, North Carolina, California and Maryland.

At HHT we believe in the importance of continuous improvement of our products for both our end consumers and the environment and are proud of our industry leading efforts in the areas of both safety and innovation. On behalf of HHT we have the

following concerns about the proposed rule.

First we seek further clarification around DOE's analyses that current energy consumption by the products proposed to be covered by the NOPR meet EPCA's jurisdictional threshold both for product consumption per household in a 12 month period as well as for the aggregate energy use within the United States in a 12 month period.

Secondly we seek further clarification around the scope of the proposed rule and there's really three sections of this, first is delineating the definition of hearth product to a reasonable range of products, clarifying the narrative description of the intended scope of this proposed definition as well as eliminating coverage of specific products entirely such as outdoor products, propane fueled products and products that by definition lack pilot ignition systems all together.

And then thirdly we object to the proposed energy conservation standard calling for a prescriptive design requirement that would completely disallow the use of a standing pilot and standby mode

as defined in the NOPR as we believe it would have the effect of a lessening competition within the hearth product by reducing consumer choice for hearth products of the kind that would still provide substantially all of the reported energy savings from the proposed prescription while providing significant product utility that would be lost under the proposed prescription.

And then secondly it would also eliminate future potential designs and applications where the use of a pilot in standby mode would be essential to those designs or applications but could still be designed to achieve substantially all of the purported energy savings claimed by the NOPR. So we at HHT also respectfully request that the proposed rule be withdrawn, that the NOPR be treated as a request for information and that DOE provide the clarification information and documentation necessary to facilitate comment and that the April 10, 2015 deadline for submission of comment be extended pending clarification of the information and the issues to be addressed here today. Thank you very

much.

MR. BROOKMAN: Okay thank you yes, I don't believe I got your name the first time.

MR. DIRCKS: Sure I'm Peter Dircks Vice President of Marketing at Hearth and Home Technologies.

MR. BROOKMAN: Thank you and I was referring to the gentleman next to you there, Peter thanks for being complete that was good, your name please?

MR. RASMUSSEN: Rett Rasmussen.

MR. BROOKMAN: Okay.

MR. RASMUSSEN: Good morning I am Rett Rasmussen, President of Rasmussen Iron Works, Inc., also known as Rasmussen Gas, Logs and Grills. We are a five generation family business founded in 1907. We have been manufacturing gas logs since 1958, infrared gas grills since 2000 and distributing radiant patio heaters since 2011.

There is no monolithic hearth product. The similarity between the products and our industry start and end with their consumption of gas lumping

them together is ambiguous, overbroad and unworkable as a definition. We submitted comments on this definition last year. Why didn't DOE give us an improved definition to comment on in this NOPR?

Gas logs are also not a monolithic product. There are countless variations in the sizes of wood burning fire places with differences in the front width, rear width, depth, opening height, gas line location, number of openings and all combinations of these different factors. Gas log sets are retrofit appliances to this vast variety of fireplace sizes, restrictions and combinations.

If there were a one size fits all gas log set my life would be much easier but there is no such solution. Accordingly gas log sets are designed to meet the market for these vast number of combinations. Some manufacturers focus on the sweet spot of sizes, 18 inch to 30 inch widths, but Rasmussen is a specialty manufacturer, offers standard solutions of up to 96 inches and custom solutions for large and unusual fireplaces with a variety of safety control systems.

Adding an electronic ignition system which I will refer to as an EIS to a gas log set presents a very challenging proposition. It is not as easy as merely replacing the safety pilot control valve as the NOPR suggests. EIS components are greater in number, valve control module, wiring, battery pack for transformer and greater in size that that for a standing pilot.

Gas long sets are not constructed as part of an entire enclosure like gas fireplaces. Gas long manufacturers do not have the voids in the sides or under the floor of the fireplace in which to hide the EIS components. Accordingly unless the installation is part of a new construction or an extensive remodel both of which are very small proportions of the gas log sales and the components can therefore be installed outside of but adjacent to the fire box, the EIS components must be installed in the fire box along with the gas log set.

Unfortunately EIS components are also more heat sensitive than those of standing pilot systems further complicating the location of components

issue. If not located properly the components could become damaged from the heat, potentially creating a safety hazard. A further issue with EIS is that they require outside power to operate. Since it is highly unusual for a wood burning fireplace to have a 120 volt receptacle installed inside of it, batteries must be used to power the functions of the EIS.

Unfortunately batteries are also very heat sensitive, discharging at temperatures below that which adversely affect the EIS components. Again it is very challenging to include these large components while maintaining the aesthetically pleasing decorative effect of gas logs. This NOPR would severely reduce our ability to provide solutions for 36 inch and large gas log set sizes. The EIS controls are the least developed systems in the hearth industry.

Battery powered electronic ignition systems with variable flame height remote control, a feature many people desire is only available with a gas capacity that allows for the use in 30 inch and smaller set sizes. Currently for these larger sets

there is only one safety control solution for installation inside the firebox and that is with a millivolt safety standard pilot system.

The only EIS solution is furnace controls that must be installed outside of the fire box and require 120 volt electricity. They are only available with on/off control, no remote flame modulation. My quest for over a dozen years and every conversation I have with gas control manufacturers is that they product a high BTU capacity battery powered electronic ignition system with variable flame height remote control but they have always told me that they just don't anticipate sufficient sales volume to warrant their extensive costs of design, testing, certification, tooling, marketing and other costs.

You see gas log manufacturers only have available to us safety control systems that have been made for other products or industries of greater sales volume but unfortunately lesser BTU flow than what our larger fireplaces need for gas log sets. Accordingly eliminating the millable safety control

will severely lessen the utility of my products for larger fireplaces, limiting them to match lighted natural gas, extensive remodels and new construction all of which would result in the virtual elimination of this category for my company.

I do not see in the TSD that has taken into account the cost of annually replacing batteries over the life of the gas log set which greatly reduces the economic benefit of switching to electronic ignition. DOE has determined that 90 manufacturers would be impacted and that 66 of these are U.S. based small businesses, less than 500 employees.

I know of only two large manufacturers in this industry, those greater than 500 and only one of which is U.S. based. Who are these other 22 large businesses? The hearth products industry is a small family business industry including not just the manufacturers but the distributors and retailers who sell their products to the consumer.

This NOPR strikes at the heart of free enterprise which DOE admits on page 7115, table V.8

it projects up to a 58% decrease in production workers as a result of the standard, ouch, how about we cut out 58% of DOE's workers and contractors might have evince a bit of empathy from DOE on the impact of this proposal?

I also agree with the NOPR on page 7116 which states that the manufacturer product cost for gas log sets are likely to see a greater increase than for other products resulting in declining consumer demand and negative impacts on gas log manufacturer profitability.

I also agree with the NOPR on page 7125 that larger manufacturers will have a competitive advantage due to their size and that this proposed standard would have a significant impact on a substantial number of small businesses. A dealer of mine in Michigan wanted me to be sure to read this to you. Rett please let Washington know that in the northern states the pilot which costs about $3.00 a month to run actually keeps the cold air and moisture out of the fireplace box.

Without a standing pilot the fireplace is

allowed to get cold and the cold actually travels through the glass or screen and makes the room cold. The furnace kicks on fully which uses up any savings from not running the pilot. Also animals and insects nest in the flus and venting which creates a potential hazard for fire and carbon monoxide backup with the blockage. This could potentially hurt or kill people and cause damage to property. Pilots reduce the chance of this occurring.

Lastly gas log sets are an excellent source of emergency warmth in the case of a power outage in areas where electric heat pumps are the primary source of heat consumers would be cold and dark during ice storms and hurricanes that knock out power lines except for their gas log sets.

Bill from Maryland wrote to me "our power was knocked out yesterday evening by Hurricane Sandy and we used our Rasmussen unit to stay warm and even do a little cooking. It was a big help to have the unit which didn't need electricity to operate. No so for many if this NOPR is adopted.

This proposed rule will have negative

impact on the safety, wellbeing and choice of consumers as well as the financial and employment health of many small businesses. I respectfully request that gas log sets be excluded from a final rule. Thank you for the opportunity to present.

MR. BROOKMAN: Okay thank you. Other comments here at the outset, yes please and your name again please?

MR. BORTZ: Leslie Bortz from the Robert H. Peterson Company. I am Leslie Bortz, I am the President of the R. H. Peterson Company. Peterson is one of the larger manufacturers of gas logs in the United States we employee approximately 235 people at our manufacturing facility in California.

Can you hear?

MR. BROOKMAN: Yes.

MR. BORTZ: We sell our products through a network of small specialty distribution businesses across the country. We also manufacture other products that would be affected by the proposed rulemaking including gas barbeques, outdoor fireplaces and pits and to a lesser extent other

hearth products.

Although our volume is a significant portion of the gas log industry, we are still a relatively small business which will be profoundly affected by DOE's proposals. I have traveled here today to speak to you again in the hope that the Department of Energy would listen and re-evaluate its overbroad proposal that would treat gas logs like all other hearth products despite the acknowledged differences between gas logs and those other hearth products that would make the proposed rule particularly burdensome to the gas log industry.

Peterson opposes DOE's proposed definition of hearth products making gas logs a covered product under EPCA. Peterson also opposed the proposed regulation of hearth products to ban what DOE calls constant burning pilot lights. First the definition of hearth products is over broad. Currently there is not a statutory definition of hearth products however there is a proposed definition which states hearth products means a gas fired appliance that simulates a solid fuel fireplace or presents a flame pattern for

aesthetics or other purpose and that may provide space heating directly to the space in which it is installed.

Do you really intent to adopt the definition of hearth products which does not include wood burning fireplaces, coal burning fireplaces, alcohol burning fireplaces, pellet burning fireplaces, electric fireplaces, water, coal stoves, these are all normally considered hearth products but your definition does include gas ovens, gas cooking ovens, outdoor gas lights, outdoor barbeques, infrared heaters, garage heaters, and indoor gas lights.

DOE's definition is unnecessarily confusing because it mixes products designed to provide heat with those designed only for aesthetics. The DOE definition would include a variety of products which serve very different purposes including gas log sets and other decorative products within the definition of a covered product, is not consistent with EPCA's purpose. When you examine EPCA's original product categories they are all

products designed to use energy to deliver functional purposes to the consumers.

Decorative products are designed instead for aesthetic experience. Next topic DOE is designing different products into one category. At several points in its analysis DOE concedes that gas log sets are very different from other types of hearth products. Gas log sets must be installed in an existing solid fuel typically word burning masonry or factory built fireplace.

As DOE acknowledges the gas log set manufacturer is not able to change the physical environment in which the gas log must operate. Gas logs also don't have an outside enclosure within which to hide the components that DOE assumes would replace standing pilots. The cumulative effect of these differences is that gas log sets will face severe challenges in complying with DOE's proposed rules that will not be present for many other types of hearth products.

Unlike other types of hearth products intermittent ignition is still a relatively new and

infrequently used device to be able to be added to a gas log set. For vented gas logs DOE estimates that only 6% currently use intermittent products. The reason for this low percentage is that it is difficult to do, expensive to do under any scenario and anything that adds to the cost of the products which are at the lower end of the hearth products market like gas logs has a disproportionate adverse impact on sales of gas logs.

It's difficult to add intermittent ignition system to gas log sets because anything that can make the gas log sits off center within the fireplace which interferes with the aesthetic experience of the consumer. If batteries are necessary it detracts from the appearance.

In addition DOE agrees that adding sensitive electronic components within the industry, within the masonry or factory build fireplace where they are subject to high heat is often impossible. There are also many varieties of masonry or factory build fireplaces into which gas logs must adapt. The entire market for gas logs is to retrofit

pre-existing masonry or factory built fireplaces.

Anything like DOE's proposed rule which sharply limits the flexibility of gas log sets unnecessarily makes installation of gas log sets impossible in a significant portion of the available masonry or factory built fireplace. To accommodate this market we sell 20 different types of burners with 10 -- 12 different sizes, 600 different log sets and another several thousand add on options.

In the fact of this broad range of installation requirements DOE is attempting to impose a one size fits all solution which will severely restrict consumer choice. In addition DOE has significantly underestimated the cost of switching from constant burning pilot lights to the alternative.

DOE would increase the MSRP price of a typical base log set not including installation these are our numbers, from $511.00 to $891.00 I would chart this. A roughly 75% increase. In turn there would be little financial savings to the consumer for change in pilot lights. As always the consumer can

simply choose to extinguish the pilot light when the log set is not in use thereby achieving all of the savings without any of the costs.

By the way there are gas companies all over the south especially that seem to be educating their consumers about doing this. Finally, all the intermittent pilots options have a higher installation cost than the constant burning standing pilot. Every intermittent pilot option is more expensive to install. Also if the unit could not use a battery powered millivolt system an electrician must also be hired to install a 110 volt suitable electrical hookup in or near the fireplace which is not designed to hold the electrical components.

In response to question 14 based on our experience we conservatively estimate that the additional cost of the electrical hookup alone is $335.00. At these costs given the limited energy savings the additional costs to the consumer is more than the three times value of the first year's energy savings. Actually it's nearly 8 times the value of the energy savings which violates the so-called EPCA

rebuttable presumption.

Based on prices of today using a constant burning pilot light equipped with one of our actually equipped with BTU's that you speak of for gas logs, it costs the consumer less than $50.00 a year to operate the pilot year round, that is compared to $335.00 and the extra cost. DOE supposedly, our national energy partner is using natural gas prices from 1993 to 2012 to overstate the gas costs of manual safety pilots.

Surely DOE understands that the world is changed forever and gas reserves are expanding rapidly.

Last week Morning Star the respected financial analyst described the following natural gas prices as the new normal for the United States. Examining the impact of abundant low cost supply we are reducing our estimate for natural gas prices by 25%. Residential natural gas prices are now less than 90 cents a therm and falling fast.

Rather than the much higher numbers in parts of DOE's chosen period used for setting prices.

By the time this rule takes effect in 2021 DOE's analysis will be even more unrealistic. DOE understands fully that taking the price of a product and increasing it by roughly 75% will drive down sales. DOE admits that this financial burden will fall disproportionately on gas log manufacturers, that's page 7116 of your NOPR.

Because gas logs are a product designed to go into existing fireplaces, consumers will simply stop buying and just continue to use wood in their existing wood burning fireplaces. Sales of gas logs will necessarily plummet.

My next topic is rulemaking. The rulemaking will adversely affect small businesses. Under the Regulatory Flexibility Act DOE must consider the impact of its rulemaking on small business. DOE has identified 66 businesses in its rulemaking that are small business manufacturers of gas logs.

That's better because we started with I think 16. DOE is ignoring the impacts on hundreds and possibly thousands of other small business

entities that will be adversely affected. The entire gas log industry and the vast majority of hearth industry are composed of small businesses. Anything that makes gas log sets less attractive to purchase will have an impact on hundreds or thousands of small businesses.

I acknowledge that DOE believes that it only needs to focus on manufacturers for purposes of the Regulatory Flexibility Act Analysis, we will outline in our written comments why we disagree with that limitation. In any event, however, even if it is not required by the Regulatory Flexibility Act, the impact on these additional small businesses is undeniable. Nothing prohibits DOE from considering that impact, even if it is not required to consider the impact.

Even if you limit the search for business entities in the hearth industry to manufacturers DOE's list is far too small. It is easy to pick up any month's edition of Hearth and Home Magazine, trade magazine, and find many additional small businesses that are not on DOE's list that are

manufacturers in this industry. I found 20 additional manufacturers with ads in the March 2015 Hearth and Home Magazine.

I looked at another -- actually I looked at an internet site called Woodland Direct and found another 18 additional small business manufacturers, almost all making outdoor fireplaces. These are numbers that just blow me away. DOE identifies key market participants, the manufacturers, wholesalers and the entities into two types of distribution channels.

100% of our gas log products are sold through a distribution retailer marketing system or what is commonly called a two-step distribution system. If you look at your information and take a look at those products and break them up as best you can which we did, on a conservative basis 56 l/2% of the hearth products in the DOE proposals are sold in this system.

They are not sold to builders, 56 l/2% are sold through distribution and retailing. For gas log sets these key market participants are almost all

small businesses. I anticipate that there are over 150 small business manufacturers, another 200 specialty hearth product distributors and representative companies, hundreds of retailers throughout the country and as the gentleman from NPGA mentioned, 2800 LP companies, I believe there are thousands of small companies that will be affected by this rule, not 66.

DOE has not cooperated with the industry. At every step in this process DOE has had and ignored numerous opportunities to sit down with the hearth products industry and develop more accurate information. DOE did attempt to gather some information from the hearth products industry, excuse me -- and for its part in the analysis Navigant was reasonable responsive.

But DOE's other contractors would not cooperate with the hearth industry and particularly we tried several times to contact Lawrence Berkeley National Labs by the way we did not know that they were a part of this until we were told last summer and the representatives from that entity which

performed important analysis -- important parts of the analysis for DOE. They refused to return our numerous telephone calls or emails or provide any information about the process.

I don't know where they got their information. DOE has ignored other technical options in large part because of the lack of communication with the industry DOE seems unaware that there are products on the market that would address many of its concerns. These products are pilot lights with a so-called time out option, this is a constant burning pilot light that is designed to shut itself off after a specific period of time in the event the main burner is not activated.

A time out pilot would address 98 to 99% of DOE's energy savings. DOE's proposals will actually cause consumers to use excess natural gas. Presently the most common manual pilot light that we sell allows the consumer to adjust the flame on the log set and people want adjustable. This enables the consumer to decide to use the log sets with different flame heights depending upon the consumer's choice

for the aesthetic experience. There are some significant gas savings from giving consumers the ability to turn down the log sets rather than forcing the consumer to run the gas log set at the maximum possible BTU usage.

DOE's proposal will force many consumers to run their logs at the maximum BTU usage even if they otherwise would prefer not to. This is because many battery powered intermittent ignition systems do not allow for varying the size of the flame. The intermittent system that DOE would require is a binary on and off which forces the consumer to run the gas log set at the maximum usage.

DOE's proposal will cause consumers to waste considerable gas that they would otherwise not and wipe out the limited savings.

There are limitations to the use of intermittent pilots particularly with gas log sets. We have tried to offer a battery powered intermittent pilot capable of variable log flame height control. It has not worked in the market so far. Last year for example we added a battery powered intermittent

pilot capable of an adjustable log flame control to a particular gas log product. We shipped many of these units in 2014 a significant number of these units came back to us because the intermittent pilots would not work well within the confines that must be addressed by gas log sets.

For this reason as DOE has acknowledged on page 7103 intermittent pilots are an infrequently used device added to a gas log set installation. Where intermittent pilots are easier to install and a hearth appliance such as a free-standing fireplace or fireplace insert where the housing for the fireplace can protect the intermittent pilot and also limit its adverse aesthetic impact, intermittent pilots are a growing part of the market and now save 50% of the units sold. This kind of market penetration for intermittent pilots is simply not happening for gas log sets because of their physical limitation.

In addition the market penetration for intermittent pilots is not happening for gas log sets because the cost implication of adding intermittent pilots is felt more strongly for gas log sets because

they have a lower initial price. DOE's forcing consumers to add an expensive device that they really have rejected so far only 6% of vented gas log sets have an intermittent pilot.

The consumer faced with paying the additional money to purchase a gas log set with an intermittent pilot often will choose to simply fall back and use its existing wood burning fire place as it was originally designed with wood burning fires.

DOE is ignoring trends. In 2011 DOE estimated that 75% of gas log users kept their pilots on year round. In 2013 DOE estimated that 25% of hearth products users kept their pilots on year round. In the current proposal DOE estimates that 20% of the standing pilot users leave their pilot ignited year round. As evidenced by DOE's own estimates the percentage of users leaving their pilots on year round is declining.

In the current proposal DOE estimates that a far greater percentage of users 40% leave the standing pilot ignited only seasonally during the months when they are more likely to have a reason to

use the gas log set.

DOE acknowledges that the industry now uses labelling to suggest users extinguish their pilot kits when the log set is not in use. Our systems are designed to make extinguishing the standing pilot and closing the gas valve at the end of the season if not more frequently, this is easy to do. We also provide clear instructions for how to reignite the pilot after the consumer has extinguished it. It is clear from DOE's estimates that consumers are responding to the industry's labeling efforts.

DOE says labelling is not achieving the maximum economically justified energy savings but that conclusion is only supported by ignoring the growing success of labeling inflating the costs of gas usage, artificially under-estimating the cost of intermittent pilots for gas log sets.

Recommending that consumers operate their units in this manner would be a far more cost effective solution than charging a seasonal user $380.00 extra to save them less than $13.00 worth of

natural gas. DOE's overstated the energy savings in its proposed rulemaking. This product will be addressed by other witnesses. To avoid repetition I will not focus on it any longer except to say that the actual energy savings from DOE's proposal may in fact be negative.

As DOE's own programs recognizes houses with gas log sets are more whole home efficient than the whole homes with the product with which they compete which is wood and wood burning fireplace or wax logs and wood burning fireplaces.

For many years the DOE has supported the transition from consumers burning wood in their wood burning fireplaces to instead using natural gas based products. DOE recognizes that houses with gas log sets and decorative fireplaces are more efficient than those with wood burning fireplaces.

When a consumer has a wood burning fire they consume more BTU's per hour, wood takes three times the amount of oxygen, heat and home air to burn to achieve the same aesthetic appeal. In addition consumers will leave the flue fully open over night

following a wood burning fire, allowing the home to vent heated indoor air to the outside. In contrast gas logs and decorative fireplaces are instant on instant off the flue does not stay fully open beyond the period of usage.

In order to show more substantial energy savings for the cost of upgrading to an intermittent pilot, DOE also assumed that gas log sets would last approximately 16 years. In our experience the consumer who uses his gas log sets regularly will replace them in 10 years. DOE estimates that 80% of the consumers either turn their manual pilot units off after each use, 40% or use the pilot seasonally, another 40%.

This makes it unlikely that the average consumer will ever recover the cost of the expensive upgrade DOE is trying to force on unwilling consumers. DOE uses the wrong housing measures to estimate the energy saving, therefore overstating those savings from its proposal. DOE's process for estimating the energy savings is unduly complicated but it is under any analysis unable to assess the

actual energy impact of prohibiting standing pilots.

To begin with DOE is using housing starts with its analysis. We believe it should be using housing completions, that is what is used by Bureau of Census I suspect whatever. For many years there's been a significant difference between housing starts and housing completions. If you use housing completions the numbers are smaller and all of the energy savings in turn become smaller.

For gas log sets its wrong to use either for housing starts or housing completion. A tiny percentage of our sales go into new construction. Gas logs are a retrofit product. Sales do not correlate with housing starts at all. If you are going to try to do an analysis using housing starts or completions you also need to focus on single family homes.

Housing start data that uses multi-family construction ignores the reality that very few multi-family dwellings will have suitable masonry, fireplaces or factory built openings for gas log sets. That's just a fact. When DOE does its

analysis it begins with a level of housing starts starting in 2014 it uses a figure of approximately 1.25 million housing starts for 2014.

That number is roughly double the number of single family housing completions in this country last year. Then DOE projects outward to a distance future using a typical level of housing starts of 1 million five. If you look at the level of housing starts for single family homes cited by James Houck in his article in Hearth and Home Magazine, there are only isolated years in the last 40 where the U.S. has it a level of 1.5 million housing starts in a given year and that level has never continued for more than a few years in a row.

DOE's analysis assumes that we reach that level and sustain it for 30 consecutive years. These factors combine to overstate the purported energy savings.

DOE is ignoring a safety issue with its proposal. A safety pilot kit uses a constant burning standing pilot as a safety device. The pilot device will block the flow of gas to the burner as a safety

mechanism is the pilot is not lit.

The pilot we sell prevents the homeowner from turning on an unlit system and filling the home with gas. Gas log sets are safer than their alternative which is wood burning fireplaces. Anything that discourages consumers from switching to gas logs will only increase the number of home fires, injuries and death. Gas logs are far safer than their alternative which is burning wood in the fireplace.

With respect to gas logs, DOE's proposal will hurt the environment. Gas log sets are also far cleaner from an environmental prospective than the product they are replacing. As USEPA has recognized in its burn-wise program, consumers would be well advised to shift from wood burning fires to gas log sets in terms of an overall reduction in critical air pollutants.

In its analysis DOE is assuming there is some environmental benefit from limiting gas log sets. To the contrary, anything which discourages people from making the transition to gas log sets

from wood burning fires will have an immediate and major negative impact on the environment.

Many state environmental agencies and other environmental and health groups like the NRDC and American Lung Association have adopted the same environmental position endorsed by U.S. EPA favoring the transition to gas log sets. For example the leading air quality agents in the country in charge of improving air quality in the difficult Los Angeles region has what it calls healthy hearth program. As part of that program to improve public health, the South Coast Air Quality Management District actually pays consumers to change their wood burning fireplaces and use gas log sets.

The agency adopted this position after extensive rulemaking examining health and environmental benefits of this transition to gas log sets, using the analysis done by the very experts cited by DOE and its NOPR Jim Hauck who will testify here today.

DOE simply assuming a non-existent environmental benefit in its analysis and ignored the

1 considerable environmental detriment that will come
2 about by making a gas log set three times as
3 expensive as they are now. When properly account for
4 the net environmental impact of the rule is negative
5 as applied to gas log sets and would trigger
6 requirements that DOE would evaluate the rule under
7 the National Environmental Policy Act.
8 Conclusion, natural gas is plentiful in
9 the United States. Natural gas reserves are higher
10 now than they have been any time in our history.
11 Natural gas prices are dropping each year as we find
12 more sources for natural gas at a rate that exceeds
13 consumption. In addition natural gas is a local fuel
14 with virtually all of the United States natural gas
15 consumption coming from sources within North America
16 in exchange for modest energy savings of a very
17 plentiful resource DOE's rulemaking would sharply
18 limit consumer's ability to afford gas log sets.
19 Based on our customer feedback, customers
20 like gas log sets because they look great but they
21 don't heat a room. If they want heat they buy a
22 different product. They also like the improved air

quality, improved health, lack of allergens, instant on/off, no creosote build-up in the chimney, no chimney fires, no sparks, ashes, relative in expense to purchase and operate, cleaner operation, improved safety, save trees and flexibility of use. The proposed rule will interfere with these characteristics by making the units prohibitively expensive or too unattractive to replace the wood burning fire.

Gas logs represent by far the lowest cost alternative for consumers tired of the inefficiency and pollution of their wood burning fireplace. DOE's proposal would rob consumers of that low cost choice, providing no offsetting financial benefit because of the gas savings if any from the proposed rule.

As it applies to gas log set, DOE's proposal does not achieve greater energy savings because homes with gas logs in terms of whole home efficiency are more efficient than the alternative. Because the savings from the pilot restriction is trivial it would be offset by the significant cost that would be created by eliminating or discouraging

customers from switching from wood burning fireplaces to gas logs.

The proposed rule would also undermine consumer alternatives because it would limit severely the number of available products on the market, particularly for customers looking for low cost alternatives to wood burning fireplaces. The proposed rule only adds restrictions and manufacturing burdens which would have dramatic and negative impact on the gas log industry.

Thank you for allowing me to go through that.

MR. BROOKMAN: Okay.

MR. BORTZ: I would like to present Jim Houck is he on your speaking --

MR. BROOKMAN: We are taking opening remarks, hopefully summary remarks and do you -- can you make a brief summary remark here or will it fit in the content in the presentation materials that are coming, Jim?

MR. HOUCK: I can make it short.

MR. BROOKMAN: Okay briefly here, just

stand right up and use that microphone right there.

MR. HOUCK: Yes my name is James Houck. Okay now can you hear me?

MR. BROOKMAN: Yeah.

MR. HOUCK: Okay my name is James Houck. I am an independent consultant. I worked for about 25 years with the hearth industry, primarily on air pollution and environmental issues and I guess my short opening remark is that the rule as proposed will do environmental damage rather than as quoted in the proposed rule, in addition the proposed hearth product standard would have significant environmental benefits. It will not and I will discuss that in more detail when we get to the environmental section.

MR. BROOKMAN: Thank you that's helpful and let me note, maybe I wasn't clear at the outset. No one wants to diminish your capacity to comment in any way here. We are hoping though and it's typically beneficial to get more detailed comments during the course of the review of the packet itself, that way all of these features line up in the record you understanding my meaning here.

So now let me ask additional opening remarks perhaps final opening remarks before we move on to the content at hand? Yes is it Steve?

MR. SKOLNICK: It is Steve and I'm going to be very, very short since I don't have prepared remarks to read. I represent in addition to my own company the mid-Atlantic Hearth Product Association the local retailers and distributors and manufacturers reps. We have about 800 small businesses that we represent. We are very concerned that you are not addressing the differences between these products and just as you look between discussions from HHT on their products and gas logs there is a lot of differences just in the electronic ignition so how electronic ignition works in a gas fireplace is dramatically different than how it works in a gas log versus outdoor so lumping these products together are very concerning.

Also in a gas fireplace the electronic ignition has challenges so while there are differences in the challenges as you look through each of the product categories challenges still exist

so in a gas fireplace or a direct vent fireplace, the challenge primarily exists in cold climate so the standing pilot while it has electronic ignition in many of the applications, it also has that backup standing pilot and the backup standing pilot is very important in cold climate because the flue gets cold, everything just doesn't work right if there isn't that heat in that cold climate providing the environment in the fireplace.

The other thing we are very concerned about is that with your proposed rule we believe a lot of the product in the marketplace will be eliminated and many of our small businesses will suffer dramatically thank you.

MR. BROOKMAN: Thank you. Are we ready to move on now? Move on to the content at hand? Given the detail and length of these opening remarks I am hoping that as we go through these slides you can apply the same level of specificity in your comments to the Department as we are going along here, okay? That would be helpful. So then let's proceed with the packet and we are going to have an overview first

commencing with regulatory authority. Yes, Leslie? Please take -- feel free to take your jacket off, everybody make yourselves comfortable we are going to be here for a while.

Dana you didn't get a chance to introduce yourself, do you wish to do so, turn that microphone on, name and organizational affiliation?

MR. MOROZ: My name is Dana Moroz I represent Wolfe Steel Limited. I'm a foreign national I understand. I would also point out that we also have a manufacturing facility in Quinton, Kentucky. We employ 96 U.S. citizens at that facility so we are domestic as well.

MR. BROOKMAN: Thank you and I'm sorry for the run around here this morning.

MR. MOROZ: It's nothing like being made to feel special.

MR. BROOKMAN: Okay. So then we are going to begin with the regulatory authority and this is on slide number 10 in my packet here.

MR. CYMBALSKY: Okay so this is John Cymbalsky from DOE. Thank you everyone for our

opening remarks, we definitely heard from you and I think we can as Doug said pretty much map your opening remarks to the particular slides but as we go through it again if you can briefly again comment when we get there that would be great.

So regulatory authority -- so as the slide says EPCA of 1975 established the energy conservation program for consumer products other than automobiles so that is the program at hand here today that granted DOE the authority to classify additional types of consumer products as covered products, there's the site to the statute.

And we can prescribe energy conservation standards for those products if certain statutory criteria are met and for those who read the proposed coverage determination, DOE spelled out its calculus there in terms of energy consumption and the mapping to the statutory authority to cover hearth products.

EISA came along and required that any final rule establishing or revising energy conservation standards for a covered product must incorporate standby mode and off mode energy use into

a single amended or a new standard and you could see this site there.

As I mentioned DOE published a proposed determination of coverage for hearth products on December 31, 2013 there's the site to the Federal Register. DOE used the definition for hearth product as proposed in the notice of proposed determination to define the scope for the notice of proposed rulemaking that we are discussing here today and there are currently no energy conservation standards or test procedures for hearth products.

MR. BROOKMAN: Yes Steve Rosenstock?

MR. ROSENSTOCK: Steve Rosenstock, Edison Electric Institute. I think it is important to talk about the process because for many years after the Process Improvement Rule was created by the Department of Energy in 1996 for a long time every product went through a process of having a framework document with a public meeting and public input.

There's advanced notice of notice of proposed rulemaking now also called the preliminary analysis with notice and then public meeting and then

time for stakeholder input then the NOPR the proposed rule with obviously seeking public input and then the final rule, it was a four step process. Things have changed over the last years where products that have been regulated before we can you know a lot of times the framework was skipped because you know it has been done before. But I think that it seems like now things have really been -- I guess it was starting with the refrigerator proposed rule last December that things have been I'll use the word streamlined -- especially with a product that there have never been regulations before to go from termination of coverage all the way to proposed rule without those intermediate steps for entities that have never been regulated before.

I think in my view or again just speaking of process I'm wondering if this is going a little bit too far too fast. Again I'm saying this just as a process geek. I've been involved with this process for many, many years and especially to streamline the process for a product that's never been regulated before I think there are significant issues, thank

you.

MR. BROOKMAN: Thank you Dana? Turn the microphone on thank you.

MR. MOROZ: I just wanted to comment on that statement that I think is a little erroneous it says that there is currently no energy conservations standards or test procedures. I believe that test standard to which fireplaces at least have fireplace heaters are subjected to and the harmonized standards do address efficiencies.

MR. BROOKMAN: Do you have a citation?

MR. MOROZ: Not with me no, it would be NC 2188.

MR. CYMBALSKY: That's an industry standard. I'm sorry I should be more specific, there's no federal U.S. test procedure that you must comply to. You may comply to your industry standard.

MR. MOROZ: Okay.

MR. BROOKMAN: Okay thanks for raising that. Frank Stanonik?

MR. STANONIK: Frank Stanonik, AHRI and I'm going to join my process geek friend over here

and raise a procedural issue specifically with regard to the undetermined definition of hearth product. In fact when DOE came out with the proposed determination it specifically stated in the federal register notice and I am quoting here "if after public comments DOE issues a final determination of coverage for this type of product, DOE will consider both test procedures and energy conservation standards for all hearth products."

MR. BROOKMAN: And Frank what is that source?

MR. STANONIK: That would be the federal register December 31, 2013 page 79639.

MR. BROOKMAN: Thank you for that.

MR. STANONIK: And the point is that the time that DOE came out with that proposal the presentation to all stakeholders and interests were that this issue of standards and test procedures for whatever hearth products were determined to be wouldn't occur until in fact the determination rulemaking was completed and in this case DOE has stepped back from that process. We think that is a

significant error and in fact is causing many people to spend a lot of time that may or may not have been required including the people doing the analysis if there had been a final determination of what a hearth product is and one final point on that is that as presently proposed and we don't agree with the definition that proposed definition does include unvented products and in fact there is a DOE test procedure on the books for unvented heaters.

And you can call an unvented gas, or whatever you want to call it but it is undoubtedly a heating product, unavoidable. They are unvented heaters they have always been considered unvented heaters and there is a DOE test procedure for unvented heaters.

MR. BROOKMAN: Okay Dana you had a follow up?

MR. MOROZ: I just in response to John mentioned that there was no federal test procedure the standard I referred to with said 2188 is an ANSI standard which I believe is a national standard.

MR. BROOKMAN: Yeah okay thank you.

MR. MOROZ: I'm sorry that was my foreign national.

MR. BROOKMAN: We are familiar with 2188, yes please Sue?

MS. WALKER: Yes just to follow up very, very, very briefly on Frank Stanonik's comment regard vent free gas products and their inclusion in this NOPR. And this is all regarding what is referred to as a pallet but is in fact a very, very important safety device called the oxygen detection safety pallet or ODS and it's been required on these products by ANSI standard since 1980.

All products on the market must be tested and listed to this standard and this is the only product in the U.S. market that incorporates this important safety device. So to just call it a pallet or standing pallet is a real mischaracterization function of the product. It has a unique -- a remarkable safety record. In the 34 years since the product has been in the U.S. market the Consumer Product Safety Commission confirms that there has never been a documented death or carbon monoxide

poisoning attributed to a product using this important device and also just briefly comment on the standby heat -- emergency heat benefit of other products, this is very, very important in the gas of vent free gas products.

At this point almost no products on the market require any electrical input to operate. They are a primary resource to consumers during the event of power outages whether brief or extended. In fact one way you can tell that is right after a power outage the sales of these products spike, people basically say never again will I be in this circumstance.

So to require the oxygen detection safety pallet to somehow be contrived to have electrical input and use batteries as backup would largely defeat that very, very important consumer benefit. One more brief point the controls from these products are very visible, accessible, consumer friendly and as others have pointed out you just can't miss it in the room.

The people who buy these products are very

focused on the energy savings so they are going to extinguish that pallet during periods of extended non-use or at the end of a season. I think that factor alone mischaracterizes these products in terms of this NOPR thank you.

MR. BROOKMAN: Thank you, additional comments here? Yes please go to the microphone and make sure it is turned on.

MS. DAVIDSON-HOOD: I just wanted to -- I'm too short for this. Caroline Davidson-Hood from AHRI -- I just wanted to raise a procedural issue tacking on to what Frank mentioned before that the fact that the determination has not yet been finalized renders I think a problem under the American -- the APA, the Administered Procedures Act because you have no statutory authority for this rulemaking and it probably raises potential due process issues so I definitely think that the determination needs to be finalized before a rulemaking can be undertaken on products that are not even included in the statute yet, thank you.

MR. BROOKMAN: Thank you. Okay so back to

John Cymbalsky.

MR. CARROLL: Ryan Carroll with HBPA. Procedurally I would like to also say that we have been frustrated to some extent in the process because we have had over the course of the last 18 months or so a number of requests one in writing to our comments on the proposed coverage of determination.

We have had attorney to attorney contact seeking meetings as well and you know we are exciting to be here for dialogue but it has been a rough road to get there.

MR. BROOKMAN: Okay thank you. Let's proceed with the content and I think back to John Cymbalsky.

MR. CYMBALSKY: Okay thank you Doug. This slide shows the criteria for selecting standards levels so EPCA directs DOE to consider to the greatest extent practicable the following 7 factors in determining whether potential energy conservation standards are economically justified.

We refer to these as EPCA 7 factors and you can read them here. I think Leslie did a good

job pretty much in his opening remarks going through each and every one of these but -- and you could see that there are things like the impact on consumer utility or performance and lifetime operating costs, the impact on both consumers and manufacturers so we are going to go through all these here in the slide packet one by one pretty much and so we will be able to comment as we go through these factors.

Okay and here's a slide I think we have heard a lot about already and we will give you a chance to again comment upon. So here is the proposed definition of hearth product and I'm going to read it for you. A gas fired appliance that simulates a solid wood fuel fireplace or presents a flame pattern for aesthetics or other purpose and that may provide space heating directly to the space in which it is installed and so here's our first comment box.

We have heard a lot of comment already but if anyone else would like to comment on the proposed definition here's your chance.

MR. BROOKMAN: It would be helpful whether

now or in your written comments, it is especially instructive to be able to say what it should be, not what you don't like about it okay so yes, over here to is it Barton?

MR. DAY: Following directions diligently I'll start by saying we can't offer any suggestion as to what it should be for two reasons. One is we still don't know what it is intended to cover and until we figure that out there's no point in pursing language.

The second issue is that we just don't think DOE has the legal authority to take completely different products and bundle them together as a single product. I mean Congress didn't go in the statute and say you know HVAC products are a covered product they said well room heaters are a covered product and furnaces are a covered product and water heaters are a covered product.

DOE's proposal sweeps together products that are far more different than those examples and treats it all as a covered product and in the process

essentially renders the limitation on their authority to impose standards irrelevant. Congress had a no Twinkie rule it said that there has to be an aggregate annual energy use of a certain level of a product for it to be worthy of a regulation in the first place. There are products covered in this rulemaking that I think pretty clearly would never meet that test and the fact that all of these products are being combined together willy nilly has the effect of aggregating the gas consumption of different products in order to avoid the need to justify regulating them individually.

I think that's not lawful but you know we've got a number of legal issues and concerns. What I would like to do is see if we can get some clarity on the proposed definition and there are a couple of issues I would like to raise in that respect. One is just looking at the language. There are a lot of disjunctions in here and if you look at it -- it is a gas fired appliance that simulates a solid fuel fireplace or presents a flame pattern okay.

So you could pretty much cross out that simulates a solid fuel fireplace because it's not particularly meaningful. I mean it's that or presents a flame pattern for aesthetics or other purpose seems to mean any purpose so where are we now? We have a gas fired appliance that presents a flame pattern for any purpose and it may or presumably may not provide space heating directly to the space in which it is installed so that whole clause is in parts no meaning.

So we are looking at a definition that says a hearth product is a gas fired appliance that presents a flame pattern for any purpose. And then we see the TSD we wouldn't have guessed this from looking at the proposed rule but in the TSD there are specific references to patio you know, ready and patio heaters that don't have a visible flame.

In plain English that doesn't present a flame pattern, it has a flame so I guess we have to read the definition as a gas fired appliance that produces a flame for any purpose. That covers everything under the sun, I mean it covers kitchen

stoves and ovens, it covers gas lights, it covers -- there's just no way to look at that definition and have any reasonable sense of what products we have to address.

And so we have struggled with that all along and John if we could could we go on to the next slide because you have got some pictures here that I think you know it's helpful to look at examples and try to understand what it is we are talking about.

MR. CYMBALSKY: Before we move on I should probably take some more comment on the definition.

MR. BROOKMAN: Yeah, yes Frank.

MR. STANONIK: Again we obviously are not in agreement with the definition but as proposed it is difficult for us to understand how that definition leads to a determination that unvented or vent free gas logs whichever you choose to call them would be included in this definition and I will point out that it says may provide space heating in fact for unvented vent free products the emphasis that's presented in this definition is exactly the opposite. Those are heating products that may simulate a flame

pattern but they primarily are developed, sold in the market as heating products.

The fact that people may want to pick that particular type because it looks like a fire is a secondary issue but you take a vent free gas log, install it, even though it's not vented that room will be heated and it will be heated quickly and hotly if you will and so there's no may about it.

And so as we read that definition we could not understand how that definition leads to a conclusion that vent free gas logs wherever they are installed are somehow included as a hearth product. It's inconsistent.

MR. BROOKMAN: Let's hear additional comments on the definition. I am going to turn to you in a moment Barton. Other comments before? Okay keep going Barton.

MR. DAY: The other puzzling thing about the definition is just you know we have got a rule that's directed at pilot lights and the definition covers and is apparently intended to cover and that's why I wanted to go on to the examples, we have got

the radiant patio heaters, well they don't present the kind of product -- they don't present the kind of issue that DOE is concerned about, the possibility of pilot lights being left on indefinitely.

The other thing I would say about that type of product is they are not in any normal English sense a hearth product so I don't -- two things to conclude either the word hearth doesn't mean anything either well I guess that's the only answer if those products are in and then it does lead to the question if they are in what else don't we know about because again we wouldn't have guessed that they would be involved in this.

I guess one of the points I wanted to emphasis is why do we have products included in this that don't have pilot lights? I mean there are whole categories of products, match lit log sets, whole categories of outdoor products. I mean there's a vast you know, herd of products that operate on small propane tanks. They can't possibly have their pilot lights be left on indefinitely and produce the kind of gas usage that you are concerned about.

Are they intended to be covered or not? I guess with patio heaters the answer has got to be yes. So we are stumped and it is an issue that we literally particularly with the apparent inclusion of patio heaters that are so different from anything else, what else is covered? What else is intended to be covered? I mean the whole language would cover anything.

MR. BROOKMAN: Ashley Armstrong?

MS. ARMSTRONG: This is Ashley from DOE. I think what you see -- so I can appreciate the fact that there is some confusion in the room. I think what would be most helpful to the Department at this point is suggestions. So what you see on the slide examples of products currently on the market that we feel meet our definition, our proposed definition of hearth product.

Obviously this is not an exhaustive list, it was not meant to be an exhaustive list of pictures. Any product out there that would generally speaking meet that definition on the last slide would ultimately if we end up going forward with this and

finalizing be covered under the rule. So at this point I think it's you know, Barton you listed some examples of certain products you felt should or shouldn't be on it and so I think what would be helpful to us is how would you suggest that the definition be changed and that's open to everyone.

But I think that's going to be and why, that's more helpful to us than saying we don't understand your definition. So I think that would help us better understand your position and how it compares to our definition going forward.

MR. DAY: We did put in, this is Barton Day again, we did put in some suggestions on that and I would you know I will go back just to the point that we don't think it's legal to approach it this way but let's put that aside because at least let's figure out which products we are arguing about so that we can have an intelligent conversation.

And for that purpose you know we have made some suggestions. You have got a number of products illustrated up there that are fireplaces. Fireplace is a good plain English word, I think everybody knows

1 what a fireplace is so I would say if you want to
2 cover fireplaces say fireplaces.
3 You have got stoves, free standing gas
4 stoves up there, again good plain English, everybody
5 knows what that is. You have got an outdoor gas
6 fireplace presented there and plain English works
7 pretty well on that. You have got log sets -- I
8 think you have to identify the products because if
9 you use these general terms about presenting a flame
10 then you have the question of well why wouldn't that
11 cover gas lights? Why wouldn't that cover barbeque
12 grills? Why wouldn't it cover kitchen stoves?
13 And so I think you really you have to tell
14 us what products you are interested in rather than
15 having a broad definition that includes all kinds of
16 other things. And the other suggestions that we
17 have made are -- don't include products that aren't
18 relevant to what's animating this rule and I put
19 patio heaters in that category. They don't have
20 standing pilot lights that can be left on
21 indefinitely. They are just not relevant to this
22 discussion.

Most outdoor products, like fire tables like that if you put a standing pilot light on that it blows out I mean those products don't have standing pilot lights, they are just not designed that way.

MR. BROOKMAN: So that's another criterion standing pilot lights?

MR. DAY: Well you know you are asking me to guess. The comments that we put in limit the scope of the definition to the scope of the problem that you are trying to address. That would in my view leave out essentially all outdoor products, it would leave out propane products, it would leave out products like mass log sets that by definition don't have standing pilot lights. There is just no reason to have them included in a rule where there's no potential for energy conservation benefits because of the inherent nature of the product.

MR. BROOKMAN: I saw Jack first.

MS. ARMSTRONG: Hang on one second and this is actually for Jack so perhaps he could answer this as he also makes his comments. Your association

broadly is HPBA hearth patio and barbeque so what does hearth mean in your world?

MR. GOLDMAN: Well I would like to first start by saying that we are being put in the position of telling you what we think should be regulated when it is your job to define what is being regulated. You know, so we don't understand what you want to cover and you are saying well we are not telling you well so why don't you tell us? Why don't you do our job for us? Okay

Hearth product -- excuse me, hearth product is defined as the base, the bottom of a fireplace. It's the stone or masonry bottom of a fireplace only.

MR. STAS: Eric Stas, DOE I would just point out that this is not a rule -- the purpose of the product is not to ban standing pilot lights to I think you are looking at it from a wrong perspective in terms of what the products are generally, the standing pilot light is a technology that we are looking at here.

MR. GOLDMAN: I'm not sure I understand

that one.

MR. BROOKMAN: I'm going to keep up with the que, Rett you are next.

MR. RASMUSSEN: Rett Rasmussen. Mr. Suspect please tell me all of your transgressions so I can properly charge you with all the crimes that you should be charged with, that's what this is. And I know this isn't a judicial proceeding but you know this is the United States of America and you are just you know saying hey tell us everything and with the regard Mr. Stas to the standing pilot, this is your gateway drug into regulating all of the industry here and make sure you tell us everything you want to have regulated.

Anything with a flame pattern well it either has a decorative pattern or it doesn't have a decorative pattern but that's a pattern if you do that. It's such a broad definition the way you have it there its kitchen sink. It's a fishing expedition, it's ridiculous, it's a waste of time, it's a waste of everybody's efforts, you folks need to get down to business and you figure out what it is

that the issues are that you need to regulate on. I mean I distribute radiant patio heaters, they are all electronic ignition, they are the most efficient type of burner systems you can get with infrared -- where is the need for regulation?

Where is the you know, I'm just blown away at what I consider to be just a lack of any type of reasonableness in this and how things are done in this country. I don't know about Canada but at least in the United States that's how things are done here.

MR. BROOKMAN: Barton do you want in here?

MR. DAY: Yeah, again I think the key here and Ashley I think one of the things that you said that is most troubling for us is well anything that meets the definition will be covered and I can tell you that I think by statute the only thing that's covered is what you analyze and justify a standard for.

And the problem is that you -- in the analysis there's so many assumptions that everything is the same and that all of these products have these homogenized characteristics I mean yeah you put

outdoor and you average an outdoor fireplace with a patio heater which is like averaging a ping pong ball with a light pickup. They are completely different and the average tells you absolutely nothing and again I think it's informative that from looking at everything that was in the proposed rule in the NOPR itself, we never would have guessed that radiant patio heaters are in there if they hadn't been named by name in the TSD and shipment numbers put together.

And so we wouldn't have even known to comment, excuse me they don't have standing pilots. Those products don't have standing pilots you couldn't leave them on indefinitely if you wanted to and they would be subject to this rule, they would be subject to the paperwork requirements and everything else and there's no way -- there is no way you can justify the proposed standards for those products.

There's no way the standard could be justified for match lit log sets and I understand your point Eric that you are sort of viewing the coverage determination as something separate but the coverage determination can't be made without a

rational explanation as to why you think the product is worthy of regulating and what you are focused on is regulating pilot light use.

And I don't see how you can rationally include in the definition products that by definition don't have pilot lights. Do you see what I am saying? And again you know if we can't agree on what it is that you think you should be regulating let's at least agree on what you think you should be regulating so that we can understand what products we have to focus on and provide an explanation about.

MR. BROOKMAN: Leslie you are next, use the microphone.

MR. BORTZ: I'm sorry Eric I think you mentioned that this isn't only about pilot kits?

MR. STAS: Eric Stas DOE I think the point is when you are looking at the covered products it's what do you see out in the market, in the real world, that would be types of units that are out there. It's the standing pilot is a technology that we are looking as an option of improving energy savings.

MR. BORTZ: Right.

MR. STAS: So I think you're -- it doesn't seem to fit this argument that you are sort of like saying the product class is something with a standing pilot light and that is sort of putting the cart before the horse or what have you.

MR. BORTZ: I think that's what you are doing, however let me ask you does that mean that a barbeque is included in this?

MR. CYMBALSKY: So you would see the definition so if it meets that definition.

MR. MOROZ: Does it? Does it? You are the guy who makes the definition? Does it?

MR. CYMBALSKY: We will take your comment on that, thanks.

MR. STANONIK: Frank Stanonik, AHRI specific to that point and barbeque I assume we are talking about a gas grill. I'm not aware that any gas grills are designed to provide any type of specific flame pattern. It's in no way shape or form, there's a flame but nobody spends time designing it to make a flame pattern.

MR. RASMUSSEN: It depends on your

definition of pattern.

MR. STANONIK: Well pattern in fact suggests design and attempt to me but the point is there is no way this definition should be inferred or intended to cover a gas grill.

MR. BORTZ: Does it?

MR. BROOKMAN: Leslie back to you keep going.

MR. BORTZ: Well I asked the question does it.

MR. BROOKMAN: I saw Ryan first, Ryan you want in here?

MR. CARROLL: Yeah I was just going to say the first part of this comment box DOE seeks comment on the proposed definition and here we are asking does this fit and we are being told well tell us whether or not it fits. I mean when I hear -- what I hear now is that definition sounds like it is set in stone and I thought there was an opportunity to comment which everybody here has about the way we did in January at the end of the comment period as well.

MS. ARMSTRONG: It's definitely still over

definition you are welcome to comment but --

MR. CARROLL: Then how can we tell you what fits when that's so influx, if it is still influx?

MR. BROOKMAN: Wait.

MR. STAS: You have seen the slide with the photos of the general types of products that were used as examples so perhaps you could help us craft a better definition to capture that type of products, maybe you think there's a better way to narrow it. So I mean I think the people in this room can sort of understand what we are trying to get at here I mean without taking things to extremes.

MR. MOROZ: What are you trying to get at?

MR. BROOKMAN: Hang on, that was Eric Stas now Steve.

MR. ROSENSTOCK: Steve Rosenstock, Edison Electric Institute. You know I used to do stuff at ASHRAE and ICC where we talk about definitions and that's because it makes such a difference for those codes. The way that it is written right now because of the words or other purpose I am afraid to say that

yes, barbeques would be covered because that is an "other purpose" so would gas lights, they are "other purpose" to provide illumination.

Again just the way the definition reads right now because it says other purpose it could be any gas product that is not covered, stoves and ovens, residential are covered in other DOE rulemakings but the way it is written right now it could cover barbeques it could cover gas lights and I'm sure there are other products that I am thinking about.

MR. BROOKMAN: So I'm hoping as several commenters have suggested that we can continue to provide useful comment on what this definition might be Barton you are next.

MR. DAY: The last comment is absolutely correct. I mean as I parched the language you know at the beginning of this discussion that definition covers every gas appliance that produces a gas flame for every purpose. Any purpose at all, so it covers water heaters, it covers central furnaces it covers every gas product that you have already regulated,

every gas product that you ever might regulate. It is not a useable definition.

You can't make any kind of regulatory determination without having an intended target. Tell us what the intended targets are so that we at least know what we have to comment on and you know again you have given us examples okay, we can comment on fireplaces we know you want to talk about fireplaces, great, let's talk about fireplaces but we can't talk about you know shipment numbers.

For some category if you are secretly including gas lights in there and we have no idea. I mean I would presume that you are not intending to include central furnaces but you have never said so so I assume you are not covering kitchen cooking stoves. But the words of the definition include them and that's the problem is that you know we need to understand what and you need to tell us you know the various places that you know you raise the question of well what's you know -- how do we address the intended products?

What are the intended products? We are

not intending you are intending and you need to tell us what you are intending so that we have an opportunity to comment.

MR. BROOKMAN: Rett

MR. RASMUSSEN: Rett Rasmussen yes we commented on this a year ago during the coverage proposal and now it's the same question again without any feedback, without any determination, without anything from DOE so it's kind of all we can look at it as is well you didn't give us the right answers we are looking for so give us other answers. So that's the frustration and we would like to see something back from DOE other than thank you for your comments, let's have a dialogue please.

MR. BROOKMAN: Frank.

MR. STANONIK: Frank Stanonik, AHRI. As far as recommending a different or improved or alternative definition I will indicate that in the rulemaking that was conducted and mostly completed on revising the standards for direct heating equipment we at that time were on record indicating that DOE should rely on and use the definition for various

types of vented, I'll use the word advisedly hearth products that are presented in the Z21 series of standards. Now we are here today because in fact DOE is intending to address a different set of products that are not included as direct heating equipment that is what that proposed determination is about and that's what this rulemaking is about.

And if that is the case okay, to me it further emphasizes that they should rely on the long established recognized industry definitions for various types of I'm going to use the word decorative gas fired products that are in the Z21 series of safety standards. The reason back in the other rulemaking the direct heating rulemaking where at least one of the reasons were the suggestion was not accepted was some concern that by if you will, gaming the definitions one might avoid regulation from federal standards.

But if in fact this all goes through that issue avoiding regulation will go away because they will either be regulated as a vented heating -- or I'm sorry as a piece of direct heating equipment

which already exists or they will be regulated as this new category of a new covered product whatever it is going to be called.

So to me that really eliminates one of the reasons not to use the industry definitions and if you use the industry definitions we can get past this point of -- well I will rephrase that. I believe it will be much clearer as to what will be covered or what is intended to be covered as opposed to as we are getting back into discussing the same conversation we had at the rulemaking on the proposed determination rule.

MR. BROOKMAN: Yes Leslie?

MR. BORTZ: I believe right now there is no standard or definition to these products. Interestingly and I really don't know the answer to this, I think I know the answer. Over the past few years when there has been no standard I believe that most products in the industry have become more efficient without a standard.

More so than your standard would have called for because your standard doesn't start for

several years. I think there are more heater fireplaces than the numbers you gave in 2011 compared to decorative fireplaces. I know our products use less gas wherever we can and have Rett you have products that you are losing less gas. The trend toward making more efficient products has nothing to do with the fact that you don't have a standard.

Is there anybody that would possibly like to help me on this because --

MR. BROOKMAN: I would like to finish out this segment and then we are going to go and take a break so as I see it we are now on the regulatory approach slide 15 and I think we are hearing again from John Cymbalsky.

MR. CYMBALSKY: Okay so we are on slide 15 as Doug said the regulatory approach so DOE considered two options for energy conservation standards for hearth products and so number one would be a performance based standard so that would be either an efficiency level or a standard for the maximum energy allowed or a design which is a prescriptive standard pursuant to the definition of

energy conservation standard at 42 U.S.C. 6291(6).

DOE may establish either a performance standard or a design standard for these products but not both. So to assess these two options DOE reviewed available technology options for performance based standards and design standards, compared options for reducing active and standby mode energy consumption and considered these for all hearth products meeting the proposed definition.

DOE concluded that a prescriptive design requirement would be more effective than a performance based requirement for the following reasons. First of all there would be less burden on manufacturers because testing for an efficiency standard would not be required. There would be a single requirement that would apply to all products meeting the hearth product proposed definition and that product classes are unnecessary because standing pilot functionality components and energy use are similar across all hearth products.

DOE notes that it did group different product categories of hearth products commonly found

in the market for use in this analysis of potential performance standards, Barton?

MR. DAY: A couple of times there John you said that you would consider all hearth products.

MR. BROOKMAN: Your microphone.

MR. DAY: Oh sorry.

MR. BROOKMAN: Barton Day.

MR. DAY: Yeah Barton Day again, John a couple of times in your comments there you said that DOE considered some fact or another for all products meeting the definition. That presupposes of course that you have some concept of what is covered by the definition. That's what we are asking to hear, we have been around and around on that and we are not getting any kind of clarity as to what you considered. I would suggest and a way to try and make this meeting constructive would it at least be possible to hear from DOE what products it considered in coming up with its justification for the proposed rule.

I mean you have shipment data, shipment data for what exactly? You have average efficiency

numbers for what exactly? I mean that's what we need to know we can't comment on anything -- how do you comment on shipment numbers without knowing shipment of what, energy consumption of what. If we can at least cabin the discussion enough.

I want to end up with a constructive discussion here and you can see how we are flapping around. We don't want to just sit here and say well we don't know because you won't tell us what products and that's not going to be very helpful. You've -- if you can articulate for us what products you looked at in the regulatory analysis then at least we can talk about that.

MR. CYMBALSKY: Okay I think this is a good stopping point we will pick up on this but let us take a few minutes to take a break.

MR. BROOKMAN: Yeah let's take a break we are due for a break. It's now 5 minutes after 11. We will resume in 15 minutes which means 20 minutes after 11. Please make sure to wear your badge or identification visible as you are walking around the halls, there are restrooms at both ends of the hall.

There's a coffee shop down on the ground floor you can get both water and coffee there at Dunkin Donuts and please don't leave the building or anything you will have to come back through security to get back in so we will resume here in this room at 11:20 and I appreciate everybody being so clear about their wants, needs and expectations. See you back here at 11:20.

MR. BROOKMAN: Please start taking your seats we are going to resume. All set, okay we are going to pick up where we left off and I guess we are going to hear from Ashley Armstrong. Hey folks let's settle down please.

MS. ARMSTRONG: And unfortunately Barton is not here but I was going to go back to start addressing some of the things he raised earlier. So at break what I did was and granted I didn't have a whole lot of time but I did go back and quickly look at a couple of the comments that have been previously received in response to the proposed definition that was in the proposed coverage determination and actually Barton in his comments earlier raised a

1 couple of new points that hadn't previously been
2 provided and they give issue -- they provide I think
3 what I would call a pretty good foundation for DOE to
4 go back and at least reconsider some of the changes
5 that it would feel need to be made to the DOE -- to
6 the proposed definition of a hearth product to
7 address maybe some of the concerns.
8 But just to answer some of the questions
9 in terms of scope, what is the analysis based on
10 before we actually go forward and start talking about
11 the analysis. A while back when we kicked off this
12 effort one of the things that we did --
13 MR. BROOKMAN: Excuse me Ashley a few
14 individuals have just joined us, we are just getting
15 going here, we are just getting started please Ashley
16 go ahead.
17 MS. ARMSTRONG: So a while back when we
18 first kicked off some of these efforts one of the
19 first things we did was reached out to HPBmA and we
20 asked you guys for shipments information. And so DOE
21 HPBA was kind enough to provide shipments information
22 which subsequently can be found in the docket but it

is for these categories. So it's for vented fireplace, both inserts and stoves. It's for unvented fireplaces, both inserts and stoves, it was for log sets, both unvented and vented log sets and it was for outdoor products with the exception of patio heaters which were subsequently added in shipments data provided.

So to answer your question directly Barton we have data, all of these products for which the analysis is based on going forward. So I think you can generally see that DOE believe its definition was encompassing of this scope. You were out of the room when I started this but I think what you seeded earlier was pretty helpful to DOE.

I went back at the break and looked at some of the comments that were received on the proposed definition in response to the coverage determination and some of the things that you have said today in pointing out some of the confusion in our definition I think is more detailed than had been previously submitted and it is very helpful so we thank you for that.

And in response to that I think DOE can work with that going forward but this generally speaking on the side is the entire coverage. So we are hopeful that you will take this opportunity since you have been seeking opportunities to work with the Department and if you have specific comments about how we can refine our definition, you will use this as that opportunity to provide suggestions on how we can revise the definition given this scope.

MR. BROOKMAN: Please go to a microphone say your name.

MS. FEINSTEIN: Hi I'm Rachel Feinstein with the Hearth, Patio and Barbeque Association. I'm looking at the data that we provided to DOE and for outdoor products it was that was specified as factory built outdoor gas fireplaces, not outdoor products in general.

MS. ARMSTRONG: Yes.

MS. FEINSTEIN: It was specifically that thank you.

MR. BROOKMAN: Okay thanks for clarifying, Barton do you want in here?

MR. DAY: Yeah Ashley thanks that's very helpful. The picture still leaves some questions and I think the one that we have had the most difficulty trying to wrap our head around is outdoor products, you know as indicated you know the data that you got was you know related to built-in gas fireplaces. The inclusion of patio heaters came as a real surprise and sort of is a barn door thrown open and we just have no idea you know what else may be -- what else may be in there and again it's that outdoor category.

I mean what you have got shown in the picture there looks like it's a built-in type of fire table product, you know there are a lot of variations on these that don't make any sense in this rule for the same reason that I think the patio heaters don't which is they just don't have pilot lights and so they are not part of the issue that DOE is trying to address.

The other categories again we don't agree that they can all be lumped together but at least now we can know what we are talking about so that helps anything else that is not depicted there that we need

to worry about.

MS. ARMSTRONG: So I think what you will hear when we move forward is that this is generally the types of products that our analysis is based as we step through and talk about the market intact, some of the data we have collected, some of the products that we purchased and we took apart and how our analysis was based from the ground up was based on this subset of products on the slide so generally speaking we believed these were the subsets of products that meet our proposed definition.

Obviously you know presents a flame pattern to us that isn't anything that presents a flame pattern, it is something that the consumer would see a flame pattern, it is designed for that flame pattern sorry you know, that's not a furnace, a residential furnace. We will be talking about those later this week.

Or that is not a water heater it was not a residential cooking product that is otherwise characterized. Those provide a different function. This really was meant to be presented at least to us

present a clean pattern that that is what it's used for that is what it was designed for so you know, like I said we are open to any further suggestions you may have on the definitions this is defined in the scope and terms of what we analyze going forward which I think will at least help you in concentrating your comments for the rest of the days.

Some of the things that you have already said, Barton I think were really helpful to us and made us think a little further at break and go back and look at some of the comments that were already and talk about how we could further craft this to help get rid of some of the ambiguity so we appreciate you bringing those to our attention.

And that's the kind of constructive feedback we are looking for throughout this process. So we are hoping that is the way the rest of the day will go.

MR. DAY: That's helpful thanks.

MR. BROOKMAN: Leslie? Get that microphone close.

MR. BORTZ: I came in in the middle so

maybe you answered but she isn't here.

MR. BROOKMAN: Go ahead she can hear you.

MR. BORTZ: Do you intend to cover outdoor gas lights as hearth products:?

MR. CYMBALSKY: No so what you see here in our analysis this is what we contemplated for the definition.

MR. BORTZ: Do you intend to cover indoor gas lights? Does that mean that that's what you are going to do or does that mean that is what you contemplate now?

MS. ARMSTRONG: That is what at this point this is Ashley from DOE that is what we propose to do. Obviously our proposal is open for comment so if you agree with that you can say you agree. If you believe we should change course and include lights you can also comment that way one way or the other.

Right now as you can see lights were not expressly analyzed which means that's not something DOE thought of as being in scope.

MR. BORTZ: Okay does that mean that you will not regulate gas lights under this rule?

MS. ARMSTRONG: I cannot say will not until we finalize something that's the determination of will and won't. At this time they are not proposed to be in scope. It's still a proposal it's still out for comment. Nothing is final until we finish the proceeding.

MR. BROOMAN: Rett?

MR. RASMUSSEN: Rett Rasmussen. In looking at the intent of your coverage as depicted by those photos one of these things is not like the other and that's the patio heater. That's commonly referred to as a mushroom type heater of which that is one variety. The other variety is an infrared type installed heater and those do not have -- they have more heating function than they have aesthetic appeal with regard to any flame pattern.

Their flame pattern is one of nondescript pattern if you wanted to describe any type of pattern it is not the same aesthetic appeal that simulates a wood fire and so I would recommend that patio heaters be taken out of this intent of coverage, thank you.

MR. CYMBALSKY: Thank you Rett, I just

want to point out that is exactly the feedback we are looking for stated in that way, very helpful, well addressed it's constructive so we can work with that type of comment and you know go forward with that. And if you say you agree with DOE not to analyze lights,that's a constructive comment as well.

MR. BROOKMAN: Okay Barton?

MR. DAY: Yeah just a quick definitional point. It is the patio heaters that threw us because we couldn't see how they could fit in under a definition that said flame pattern.

MR. BROOKMAN: I thought there were many different things --

MR. DAY: I thought flame pattern meant what you explained a minute ago until we saw patio heaters.

MR. BROOKMAN: Are there many different kinds of patio heaters?

MR. DAY: They are fairly generic they are really suited to general types.

MR. RASMUSSEN: Actually you could put there is at least three different types, there is

also one that doesn't put as much heat but it is the spinning tube type one where it has a flame effect but people expect to have heat off, this is Rett.

MR. BROOKMAN: Okay thank you were you finished Barton? Okay you were. I really appreciate this last series of comments and the exchange that was there. Do we have additional comments based on these photographs about products and definitions, Leslie?

MR. BORTZ: It looks like you are intending to cover outdoor fireplaces.

MS. ARMSTRONG: This is Ashley that is correct.

MR. BORTZ: That is correct. How do you intend -- what do you intend to consider? What's going to be -- how are you going to -- I mean despite what you say in your analysis that there are extremely few outdoor fireplaces that have standing pilots.

MS. ARMSTRONG: Okay so first I do want to -- this is Ashley from DOE. So the definition of as Eric pointed out earlier the definition and then

the proposed standards are really two separate things for us. The presence of a standing pilot has nothing to do with DOE's definition of scope. DOE was defining the scope based on these characteristics of products in a more broad term.

Obviously we have had a lot of discussion, a very fruitful discussion and some suggestions about how DOE could further potentially change that definition to make it more clear. You know the presence or absence of a pilot though has nothing to do with whether products will or won't meet that definition. The pilot is nowhere in that definition.

That isn't the coverage determination, purely for defining what types of products are in in terms of regulatory coverage for DOE to finalize its coverage determination.

The second part of this and I think gets to your question which I am going to say partially I am going to answer throughout the day in terms of the proposed standards you know the analysis we did for standards is going to be presented through the rest of the day. It starts all the way from the market

assessment we did, what types of products we chose from the market. We took apart how we costed those and then downstream of that the economic analysis fed into lifecycle and national benefits and costs.

So I am going to hold your question in terms of what exactly we considered in terms of certain attributes and how we did that for the rest of the day but obviously if you see something throughout the day for any certain product that you have data or you feel is different you should comment on it, that's what this is all about.

MR. BROOKMAN: Leslie keep going.

MR. BORTZ: That outdoor fireplaces have -- you have in your statistics that 26% of outdoor fireplaces have a standing pilot. That's just not true.

MR. BROOKMAN: Okay.

MR. CYMBALSKY: We would look forward to the number that you think it is so data definitely will help .

MR. BROOKMAN: Barton?

MR. DAY: Just one quick one before we get

1 off the definitional point and that is that I
2 understand what you are saying about coverage but
3 there is going -- there's a separate definitional
4 issue as to the scope of the standard because you are
5 basically saying well we want the coverage
6 determination to cover products whether they have got
7 standing pilots or not but the standard really can't
8 be justified for products that don't have standing
9 pilot lights to begin with so we will just need to
10 pick that up later.
11 MS. ARMSTRONG: So this is Ashley from
12 DOE. So you are absolutely right and our analysis
13 and all of our analysis there will be some fraction
14 of the market that is not impacted by our standards
15 and that usually means that they are at or above they
16 already meet our standards so our standard has no
17 impact on that percentage of the market and as we
18 march through today and we talk about shipments and
19 we talk about the distribution there will be some
20 fraction of the market that we are going to
21 acknowledge in these different categories that are
22 already shipped without a pilot thus would comply.

MR. DAY: Just to clarify and I agree with what you just said I mean there are products that some have pilot lights some don't. There are some categories of products that don't have standing pilot lights at all and so there is no you know, there is no justification for having them subject to the standard.

MS. ARMSTRONG: Right so this is Ashley from DOE so if there are certain products as we march through today that could never have a standing pilot you know we welcome that feedback and we believe they shouldn't be subject to at least a pilot light, the consideration of a pilot that's something that you are more than welcome to provide comment on.

MR. BROOKMAN: Are we ready to move on now, I think we are ready to move to the market and technology assessment yes.

MR. CYMBALSKY: So this slide just shows you what we are all going to cover here in the next few hours so.

MR. ELSZASZ: Good morning, I think it is still morning. My name is Justin Elszasz. I'm a

managing consultant with Navigant Consulting and I will be presenting the market assessment as well as our engineering analysis. So to start off the purpose of the market assessment is to both qualitatively and quantitatively you know give really the big picture of the hearth market, the hearth product market and again this is using the proposed definition of hearth products.

So when we say we are characterizing the hearth industry we are talking about gas fired products. We used a couple of different resources in order to tackle the market assessment. One is through product literature review you know this is product literature that is generally available on line. Another is through confidential manufacturer interviews and another key resource was trade association data in this case from Hearth Patio and Barbeque Association.

As mentioned by John earlier additional technology options were considered by given the focus of the rule on a prescriptive standby you know standard the technology that is relevant to this

assessment is obviously electronic ignition.

If I can change slides, okay. So the next few slides are going to be the groups of products that were analyzed as part of the hearth product analysis going forward. So the first of these groups again we saw these groups earlier on an earlier slide during what John and Ashley were talking about.

The first of these groups was vented fireplaces, inserts and stoves and that of course includes both b-vent and direct vent styles. The next in these groups is of course the unvented variety so similar style products, fireplaces, inserts and stoves but without the means for venting byproducts of combustion outside of the building.

Unvented products both in this category as well as unvented gas logs which we will see in a moment of course include the oxygen depletion sensor. The next group, these are the next two groups, vented gas logs and unvented gas log oh I think Frank has a --

MR. BROOKMAN: Frank Stanonik.

MR. STANONIK: Frank Stanonik AHRI. Since

you have identified it here I am going to take the opportunity to point out you do show that unvented products do require an oxygen depletion sensor which is in fact built-in to the pilot system and in the previous slide DOE explained or it was explained that product classes are necessary because standing pilot functionality is similar across all hearth products and again I'm only dealing with the definition as proposed but in fact the pilot on an unvented product has a very unique functionality that is not found in any other types of vented I'm sorry, any other types of hearth products as defined here and you have identified it it's the ODS which is part of the pilot system so I think that has been overlooked in terms of how DOE has been approaching this requirement.

MR. ELSZASZ: I actually have a follow up question to that. Is there a specific difference between the standing safety pilot and an electronic ignition in terms of functionality or safety? So in other words would you know you mentioned that the oxygen depletion sensor has a safety component to it, you know we would look for feedback as to whether the

electronic ignition system could sufficiently you know supplant those functions I guess.

MR. STANONIK: Frank Stanonik AHRI okay I'm not sure I understood the question because when you say electronic ignition system to me are you talking about a system that would light a pilot and then the pilot would be there operating as opposed to electronic ignition systems which just will directly ignite the main gas.

MR. ELSZASZ: Yes so primarily we are concerned with intermittent pilot ignitions as I will mention later we found that that was the predominant style of electronic emission in the hearth product market so I guess the question here is whether or not an IPI system could satisfy the safety and functionality that a standing pilot would for unvented products.

MR. STANONIK: Okay I understand the question we will try and get you an answer.

MR. ELSZASZ: Okay, thank you.

MR. BROOKMAN: Leslie?

MR. BORTZ: I don't -- I believe in

today's world that yes it could but it couldn't do so as reliably and of course reliability is critical.

MR. ELSZASZ: Okay thank you.

MR. BROOKMAN: Thank you Leslie.

MR. ELSZASZ: I will go ahead and move on. So again the next two groups here that we have identified are vented gas log sets and unvented gas log sets. Of course as was mentioned earlier I think we have kind of discussed some of the key features of gas log sets earlier in opening statements but gas log sets are typically installed and existing masonry fireplaces. Of course a distinguishing feature between these groups as well that are vented or unvented or not and these products also, you know what was mentioned before don't include an enclosure or heat shielding so I guess on that there. And of course the last product category that we kind of analyzed and we have already discussed this quite a bit are outdoor products.

MR. ROSENSTOCK: Steve Rosenstock, Edison Electric Institute. For this particular sub-category wouldn't the majority of a lot of these products --

I'm just more familiar with these products in commercial settings rather than residential so did you do that sort of break out, whether it is more commercial versus residential because you know it does make a difference in terms of type of product coverage sometimes under DOE?

MR. ELSZASZ: Well so when it comes to I guess the differences between how they are used and energy use I guess I would defer to later portions of the analysis specifically the energy use analysis.

MS. ARMSTRONG: But Steve to your point for coverage the answer is no.

MR. CYMBALSKY: Move on.

MR. ELSZASZ: The products covered are not based on if it goes in a commercial building or a residential setting.

MR. BROOKMAN: Thank you Ashley and John Cymbalsky both, proceed.

MR. ELSZASZ: So based on data that we received from Hearth Patio and Barbeque Association we were able to estimate market shares again of the gas fired hearth product market and so these are the

-- you know estimates that we came up with. Again outdoor product category was adjusted starting with HPBA data as a starting point but was adjusted to include patio heaters and I think we have a question?

MR. HOUCK: James Houck.

MR. BROOKMAN: Why don't you leave that on James?

MR. HOUCK: Okay now can you hear me?

MR. BROOKMAN: Yeah.

MR. HOUCK: James Houck. Yeah I have a couple points regarding your market assessment slide. One is I'm not questioning the accuracy although I don't have the numbers in front of me but the division of how you categorize these different types of appliances I think may cause considerable confusion and if it was involved in DOE's projection of future markets it's totally inappropriate and the project that this shows in the rule in the technical support document is quite an error.

What I'm referring to is you have grouped vented fireplaces, inserts and stoves together and unvented fireplaces, inserts and stoves

together and vented gas logs and unvented gas logs off to the side. Inserts and gas logs are for a retrofit market. Fireplaces and stoves are primarily not entirely, but primarily for a new housing market therefore the impact that it will have on the prediction of future markets will be different if they are categorized in this way.

For example you would not want to use a new housing development for estimating of the gas log sets or the inserts which appears to be the case. Also what I want to talk about later I hope I have the opportunity is the ramifications that these have on safety and air quality.

MR. BROOKMAN: Okay thank you.

MR. ELSZASZ: Okay as far as the comments you had regarding shipments those will be particularly useful during the shipments analysis discussion which is a bit later so if you have you know, comments regarding what was used as far as correlations go to predict shipments into the future that I think would be the time to you know state those comments.

MR. BROOKMAN: Dana?

MR. MOROZ: Dana Moroz, Wolf Steel. I don't have numbers unfortunately to support it but I am gravely concerned about the 15% of outdoor products that your assessment has identified. I think that's grossly exaggerated certainly based on our production and our sales without having those numbers in front of me to quote to you.

MR. ELSZASZ: Okay thank you. If there aren't any more comments I am going to go ahead and move on. So as we stated earlier you know this rulemaking is focused on a prescriptive requirement and so digging into the market assessment a little bit further we are looking at the different types of ignition systems that are in the market and generally these fell into three different categories, match lit which is essentially the lack of the ignition system, the constant burning or standing pilot which we have discussed earlier and the electronic ignition.

Again we will discuss this a little bit further later but we found that as far as electronic ignitions go intermittent pilot ignition systems are

the primary form found in the hearth product market and so based on several resources including comments we have gotten during confidential manufacturer interviews these are the estimates that we came up with for each of the hearth product groups, split out by their ignition type.

So I think I'll pause here and leave this up for a second if anyone has comments on these estimate shares.

MR. BROOKMAN: Barton?

MR. DAY: Yeah one of the major issues is that you missed a technology completely. The industry developed a technology that was developed solely to achieve greenhouse gas emission reductions and its now being standardized under ANSI under the name On Demand. Be careful with that terminology because some people in the industry have used that for other types of devices but it is a device that was designed specifically to eliminate unnecessary pilot use.

It's been in use in the industry for the last several years. Its use is expanding and so you

know it is an important -- it's a very important change in terms of the innovation that has gone on and in the industry of which there has been quite a bit. I would also point out that match lit technology isn't legal for vented indoor products so there is no such thing as a match lit indoor product except for --

MR. ELSZASZ: Sorry was that vented or unvented?

MR. DAY: Vented. The sole exception to that is unvented I'm sorry vented gas log sets only natural gas, only in some jurisdictions and for outdoor it is the predominant, it's the predominant approach in your standing pilot numbers for outdoor products or probably or to magnitude high at least.

MR. ELSZASZ: Thank you.

MR. BROOKMAN: Frank Stanonik?

MR. STANONIK: Frank Stanonik AHRI. With regard to your numbers here on unvented products whether it is a gas log set or otherwise at least from the perspective of the manufacturers we represent the electronic ignition percentage is so

small it is practically zero so we think you have certainly overestimated what percentage of these products have electronic ignition as you have defined it here.

MR. ELSZASZ: Thank you.

MR. STANONIK: We will try to get you a more precise number but it is going to be small.

MR. ELSZASZ: Thanks.

MR. BROOKMAN: Yes please Barton?

MR. DAY: The other key point is that these numbers if you had looked at these numbers five years ago they would be totally different. If you look at them five years from now without any DOE activity they would be completely different. This is an area where innovation in the industry has been a major factor and these numbers are changing very rapidly.

MR. ELSZASZ: Just to follow up when it comes to the additional ignition type that you have mentioned I think what would specifically help us would be again shipments data so that we could accurately reflect market shares here.

MR. DAY: Well you can't because the picture is changing very rapidly.

MR. ELSZASZ: I see okay, thank you.

MR. CYMBALSKY: So this is John from DOE could Barton or somebody else comment on what it actually does in terms of the On Demand and how many hours of non-active mode does it shut itself off with? The way I understood it earlier that is what it means to be On Demand. Is there a common out grid on the set up of these things or?

MR. BROOKMAN: Ryan.

MR. CARROLL: Yeah Ryan Carroll with HPBA. It's programmable so it could be as few as a handful of hours that might be set by the controls manufacturer I believe.

MR. CYMBALSKY: Factory set at some level?

MR. CARROLL: Maybe.

MR. CYBALSKY: But is it shipped by the manufacturer at some level of hours?

MR. SCHLACHTER: In our case yes.

MR. BROOKMAN: Is it John?

MR. SCHLACHTER: I'm sorry John

Schlachter, Maxitrol, yes the manufacturer determines the length of time per the main burner not to be active. After that time period times out it extinguishes the pilot.

MR. CYMBALSKY: Can you tell us the hours?

MR. DAY: This is Barton Day again the key point about it is that it is designed to eliminate all pilot light gas consumption except during relatively heavy periods of product use and so the prospect of standing pilot lights being left on outside the heating season or outside the intensive use season it completely eliminates that.

MR. CYMBALSKY: Right so I guess what would help us in our analysis is just two fold right so we would like to make a more accurate depiction of how the market is moving in terms of the shipments and then at the same time be able to know how to adjust our hourly -- our annual hours of non-use just to get the energy correct to so that would -- both of those things would be helpful.

MR. BROOKMAN: Okay John?

MR. SCHLACHTER: I just wanted to comment

that yeah it's programmed and shipped to the manufacturer that way. It's not a user programmable function so the consumer can't change that timing.

MR. BROOKMAN: Okay thank you, comment from someone who is joining us online, Martin Thomas says there is also a remote operated pilot which makes it easy to turn the pilot on and off, Dana you are next.

MR. MOROZ: I just wanted to comment that this we are talking about new technology that is evolving and these numbers as Barton has pointed out shows a trend that the industry is working towards developing new technology so I have asked for a definitive timeline that these controls shut down is it practical? There are new systems being developed every day. We are going to our suppliers and we are saying here's what we are looking at and what's practical -- what works best and achieves the desired effect which is a satisfied customer.

So to come up with a timeline and say this specifically is what they are going to do today is not practical, we haven't got there yet with our

technology. We have one on the market today the standards for pilot controls are just being revised by a technical committee to address this new type of technology and so it would be premature for us to come up with a definitive time line for them.

MR. BROOKMAN: Frank Stanonik?

MR. STANONIK: Frank Stanonik AHRI. Just one other point in terms of what this particular NOPR I can't help but note that although you presented in a slide I'll say at least a pseudo-definition of constant burning standing pilot no such definition was provided in the regulation so I think for all of us it might be helpful to at least see what DOE proposed or what they believe is the definition of constant burning pilot.

In the absence of that I am assuming it is the common industry definition which is fairly similar to what we see on the slide that being the case the On Demand pilot shuts off the pilot not with any additional user interaction, is not by definition a constant burning standing pilot.

MS. ARMSTRONG: Right and this is Ashley.

So that brings up a good point and to both of yours would you suggest that DOE analyze that as a design option in this rule?

MR. STANONIK: Of course.

MR. DAY: I think I would suggest --

MR. BROOKMAN: Barton Day?

MR. DAY: Yes sorry I apologize. I think I would suggest that the issue that you are trying to address probably won't be around in five years.

MR. BROOKMAN: Yes Rett?

MR. RASMUSSEN: Rett Rasmussen. Just since the last time we were here three and a half years ago our gas logs sales were about 3 to 5% electronic ignition systems. Last year it was up to about 14% so we are working on it ourselves but as I said in my comments with our types of products we have a very hard limit with current technology or even expected technology because of the extreme cost to develop by the control manufacturers products with electronic ignition that will accomplish what you want for larger fireplaces that just isn't available and I would be out of business in that segment if

this went through.

MR. BROOKMAN: Okay well thanks for that specificity that is helpful and please hand that microphone to Leslie.

MR. BORTZ: I don't mean to question you Rett but I think there's a big difference between the amount of electronic ignition systems on LP as compared to natural. Do you see that?

MR. RASMUSSEN: Rett Rasmussen we sell more natural gas sets than we do propane for vented products, for vent free it's still a little bit more skewed to the natural than propane but as far as the electronic ignition system usage I haven't analyzed it between the two gas types. I think it's still skewed a little more towards natural just because it is the larger proportion of our sales.

MR. BORTZ: Excuse me Leslie Bortz. I believe that proportionately there is more sold to the LP market because the LP market has a pilot that costs more money to run.

MR. BROOKMAN: Okay.

MR. ELSZASZ: Thank you that's helpful.

MR. BROOKMAN: So we are going to keep moving on with the market assessment.

MR. ELSZASZ: Actually we are moving on to the engineering analysis. So the purpose of the engineering analysis is basically you start to put some numbers to this. So the idea here is to determine what the cost difference is for the proposed prescriptive requirement disallowing standard pilots. So the methodologies used here, it's kind of a combination of two approaches. One is a design option approach which seeks to determine the incremental cost of adding on a new technology or design and the second methodology is reverse engineering or in other words tearing down the physical product, determining its bill of materials and then assigning costs based on that bill of materials.

Again focused on the prescriptive -- the potential prescriptive standard here we have assumed that a standing pilot model would need to convert to an intermittent pilot ignition again. We found that IPI or intermittent pilot ignitions are more

predominant in a hearth market. And also I will just mention going forward that as it was mentioned previously match lit systems you know, of course don't have a standing pilot and so you know when it comes to discussing the effects of the proposed standard the match lit systems aren't really considered.

So graphically and this could be sorry --

MR. BROOKMAN: Leslie?

MR. BORTZ: When we started talking to Navigant you had four categories. You had match lit, you had piezo you had standing pilot and you had electronic ignition. We explained to you much to our dis-benefit I think that piezo isn't a type of ignition it is a part of an ignition system. If a person buys which they do -- buys a piezo on a standing pilot system it is because they want to be able to turn it on and off so I think that I made a mistake in not in the reality of the systems but I made a mistake by telling you that's not a system because certainly there's no reason to have a piezo if you are not going to turn the unit on and off.

MR. BROOKMAN: Rett please?

MR. RASMUSSEN: Rett Rasmussen. Yeah a piezo just replaces a match or an aim in flame. That's all it does. It's just an easy means of igniting the gas. It has nothing to do with the main function of these control systems which is for safety shutdown in the event of an interruption in the gas supply or a flame out. You want to be able to shut down that gas flow absolutely required on propane because propane is heavier than air and sinks to the ground, pools and lights off of the first spark.

Natural gas is lighter than air and vents up the chimney so.

MR. BORTZ: So the point is we sell a fairly significant amount of what you would call standing pilot but with piezos and I don't know if you take that into consideration when you say how much energy wasted energy, there is because there is no reason to buy the piezo accept it makes it an awful lot easier than sticking your hand in the fireplace with a match.

MR. BROOKMAN: Yeah okay thank you, Dana?

MR. MOROZ: Dana Moroz, Wolf Steel. In your methodology and your reverse engineering approach I am a little concerned about how you would have identified your costs. There's a fundamental difference between electronic ignition and standing pilots. One uses a generator system and one uses a flame as part of an electrical circuit. The problem that arises is when it is applied inside of an appliance is it becomes much more sensitive to air movement and that air movement is governed by the different applications of the installation whether it be a fireplace or an insert or a stove.

Electronic ignition additionally will suffer a microsecond of disconnect between the flame and that sensor to shut off the gas. A standing pilot system on the other hand that uses the generator will operate up to 30 seconds without any flame before it will shut off the gas. That makes it much more tolerant of the many varying conditions and each appliance and your tear down method of assessing cost doesn't look at that development of each individual product and how it interacts within that

environment.

It's like looking at simply taking this component out and putting this component in and there's a lot more detail and design that goes in behind the scenes to make it function in each and every application.

MR. BROOKMAN: Okay thank you.

MR. ELSZASZ: So again drilling down into this engineering analysis a little further you know I've mentioned this a couple of times already we found intermittent pilot ignitions to be the predominant form of electronic ignition systems in the hearth market and so when comparing a standing pilot unit and this applies to any of the groups that we looked at, you know what we are trying to assess is what the differences between a standing pilot and having to convert it to an electronic ignition and so in the case of the electronic ignition the general assumption was that these would be converting to an intermittent pilot.

As far as the standing pilot units are concerned the baseline assumption varied by products

so in the case of vented and unvented fireplaces, inserts and stoves we found that the millivolt gas valve was more predominant for several reasons, not the least of which being space constraints.

So fireplaces, inserts and stoves already have an enclosure and heat shielding and make it more readily available for the larger millivolt gas valve whereas for vented and unvented gas log sets, outdoor you know there are I guess additional space constraints imposed as well as cost considerations and we found that manual gas valves were more predominant for those product groups.

MR. BROOKMAN: Leslie?

MR. BORTZ: I'll wait, yes sorry.

MR. ELSZASZ: You can go ahead.

MR. BORTZ: No I'm sorry I'm a talker so.

MR. ELSZASZ: This is the last slide of the engineering analysis so you can go ahead and comment anyways but so these are the results of that engineering analysis. What you will find presented here are you know each of the groups, for each of the groups what is driving the cost are predominantly two

things, of course the components and labor that went into the assembly but also the representative shipment volumes.

So based on shipments data that we have gotten from HPBA as well as a listing of manufacturers we have assumed a certain shipment volume for each of these product groups which you know tend to scale the manufacturer production costs and so I guess I will pause here as well for comments on the manufacturer --

MR. KUPSH: Can I make a quick comment going back?

MR. BROOKMAN: Jim please?

MR. KUPSH: Based on slide 30 if you take a look at your information on slide 26 shouldn't IPI be your representative baseline because it is the system that has the highest percentage for the first two categories?

MR. ELSZASZ: Right so I should have explained here is what is meant by baseline is --

MR. KUPSH: Cost wise.

MR. ELSZASZ: What's that?

MR. KUPSH: You are saying cost wise rather than yeah --

MR. ELSZASZ: Right.

MR. KUPSH: But I makes it seem as that is the predominant system not what is for those two categories the predominant system currently is IPI.

MR. ELSZASZ: I see right so back in the market in tech assessment that's where we see it so you are talking about vented fireplaces, inserts and stoves so we do -- that is factored into the analysis we know that electronic ignitions are more predominant in that group. What we are seeing here is that baseline is normally since there aren't currently any heart product standards what we defined as baseline is a product that consumes the most energy in standby mode and so you know normally with a product that already has an efficiency level established, the baseline would be that unit which just meets the minimum efficiency standard. But since that isn't the case here the baseline is what uses the most energy.

MR. CYMBALSKY: This is John from DOE so

just to follow up so when we get later in the analysis the market shares of those technologies are factored in when we do the impacts to consumers, manufacturers, et cetera.

MR. ELSZASZ: Right.

MR. BROOKMAN: Let me see Rett?

MR. RASMUSSEN: Rett Rasmussen on the slide that was just up with the chart what is max tech in quotes is that a type of electronic?

MR. ELSZASZ: Maximum technology.

MR. RASMUSSEN: What does that mean?

MR. ELSZASZ: Or max tech option is the design option that reduces the energy consumption of the mode that you are looking at by the largest amount.

MR. RASMUSSEN: Rett Rasmussen so are you saying that the electronic ignition represents the maximum technology for being able to have no gas usage in the standby mode?

MR. ELSZASZ: Right, right.

MR. RASMUSSEN: Thank you.

MR. ELSZASZ: Yep.

MR. BROOKMAN: Frank and then back to Leslie.

MR. STANONIK: Frank Stanonik AHRI. A question and actually two questions but the first question so your chart on slide 31 of the representative shipment volume is that intended to reflect the market assessment that is shown on slide 24?

Or based on that? And the reason I ask is because if I look at slide 24 the total estimate of unvented products is I'm going to round it to up 23% which is certainly less than half of 56% which is the vented fireplaces so if I maintain those proportions the total of the two numbers in this slide for unvented should be less than 5,000 and in fact if you actually run the numbers it comes out to be about 4,100 and yet you have got it at 7,000 so why is it -- the question is why is it different?

MR. ELSZASZ: Yeah so the portions are different because these take into account the number of manufacturers that are making any one of these types of products so that is why the difference in

purportions.

MR. STANONIK: But I venture --

MS. ARMSTRONG: No Frank it is purchasing power right so in the cost model the cost of the component will change based on the purchasing power in terms of volume of the manufacturer that's what this slide is trying to depict. It's not going to match the shipments from the other, it is purchasing power.

MR. STANONIK: So it is not intended to match?

MS. ARMSTRONG: Correct it is not intended to match.

MR. STANONIK: All right then I had one more question and I'm going to go back to the previous slide 30 your representative standing pilot type for an unvented fireplace insert stove you have a millivolt gas valve and for an unvented gas log you have a manual gas valve, both of those products use the same ODS pilot system, why the distinction? We couldn't understand why that was there or I will rephrase that. What do you think is different maybe,

it's the same.

MR. ELSZASZ: So the difference between the millivolt and the manual we found was both the space constraints and the cost so in the case of a vented or unvented gas log sets by reviewing product literature we found that manual gas valves were more likely to be used in gas log sets as opposed to an unvented one and it does effect the cost that we see on slide I think 31.

MR. STANONIK: Ok excuse me so unvented gas log sets you are including products that don't have ODS systems?

MR. ELSZASZ: No. Unvented whether its fireplace, inserts, stove or gas logs would include the oxygen depletion sensor.

MR. STANONIK: They have the same control.

MS. ARMSTRONG: Perhaps the manufacturers can answer.

MR. BROOKMAN: Jim Kupsh?

MR. KUPSH: Yes, you have for the unvented systems you have both millivolt and manual applications. Normally the manual application is not

anything but a log set because it is a more cost effective lower price than the fireplace those have a millivolt system on it.

MR. ARMSTRONG: So in answer to your question Frank, that would affect our delta which is why we did them more conservative.

MR. BROOKMAN: Thank you Ashley, Dana?

MR. MOROZ: Just if I can get a little bit more clarity Jim are you saying it's not a millivolt control then?

MR. KUPSH: No what I'm saying is that you have for unvented systems you have both a manual valve application and a millivolt valve application but I doubt there are any stoves, fireplaces, inserts, vent free that are being sold with just a manual valve. It only really exists as a baseline for the log set applications and on the more expensive fireplace stoves they are using the millivolt and so that would probably be the only control application both using the ODS sensing pilot.

MR. BROOKMAN: Thanks Jim, Dana?

MR. MOROZ: This is Dana again just from

my clogged old mind what you are telling me then is the manual does not employ millivolts?

MR. KUPSH: No when you -- a millivolt valve has a separate millivolt operator for the main burner.

MR. MOROZ: Right.

MR. KUPSH: A manual valve has simply an electromagnet as a safety in the control.

MR. MOROZ: And what --

MR. KUPSH: And a millivolt does too but it also has a second operator. A manual valve is like pilot rotate to on.

MR. MOROZ: And what holds the gas flow I'm sorry I'm just trying to get an understanding.

MR. KUPSH: The thermal couple on the pilot.

MR. MOROZ: So it is millivolt?

MR. KUPSH: Correct but that's normally not -- that's normally what's being considered a millivolt valve.

MR. MOROZ: By point of definition and that's why I'm trying to when you get down to it it

is a millivolt system then?

MR. BROOKMAN: So Rett please?

MR. RASMUSSEN: Rett Rasmussen what distinguishes generally between a manual control from a millivolt is the manual control uses a thermocouple a single couple whereas for its heating element it is electrical element and the millivolt uses a multi-couple or thermopile.

So you need a lot more electricity, a lot more millivoltage to operate a millivolt control system because it has the dual operation of both safety feature and operating the on and off of the control valve as from what you need for a manual control system where it is merely the safety function that the pilot is being used for.

MR. MOROZ: Dana from Wolf Steel again. And I just asked for that clarity Rett because here we are identifying it as a different system. I think traditionally in our industry we identified the one with the thermopile as being a remote control millivolt system and the manual was employing a thermocouple but here we are calling it a manual

which would suggest it is just and on and off shut off which it is not.

I think we should distinguish that in fact it is a millivolt system as well.

MR. RASMUSSEN: Rett Rasmussen well I distinguish millivolt systems as being really they are operator device agnostic, you can put a wall switch, you can put a remote control, you can put a wall timer you can put any variety of external switching devices on to that type of system that you can't put on to a manual control valve.

MR. MOROZ: Agreed but we are defining -- we are distinguishing between a manual and a millivolt and to Frank's point I think it is misleading, it is a millivolt.

MR. RASMUSSEN: Rett Rasmussen what they are actually putting here and correct me if I am wrong, is they looked at all the different types of products within that particular group and within the unvented fireplace, inserts and stoves they found that the predominant usage of valve type is the millivolt gas valve whereas for gas log sets and

unvented gas log sets it is a manual control. And from that that is where they made their cost calculations that was the baseline they established.

I don't make unvented fireplaces, inserts and stoves, perhaps a manufacturer of that would better be suited to comment on what type of control valve is the most predominant type.

MR. BROOKMAN: Yes Barton go ahead.

MR. DAY: Just a question, we are now talking about which type is predominant. Going back a couple of slides where you had the breakout in market share that you referred to -- my question is where did you get data to come up with the market shares?

MR. ELSZASZ: You mean for the ignition types?

MR. DAY: Yeah.

MR. ELSZASZ: Ignition type, a couple of resources. One was through product literature review so that that was an extensive review that resulted in essentially a data base with model numbers, ignition information and so those proportions for several of

these categories that was used as well as during the confidential manufacturer interviews.

We got feedback during that interview process that indicated you know typically what percentage of their shipments you know were for each ignition type I guess.

MR. BROOKMAN: Rett go ahead.

MR. RASMUSSEN: Yeah I'm a little -- well I can tell you and I will be happy to divulge it in my Navigant interview that I said that I have no idea what the percentages are there is no you know, valid clearing house for it where everybody in the industry is divulging their sales numbers.

I don't know how they come up with these and there is only I'm sorry how many manufacturers did you interview for this assessment?

MR. ELSZASZ: I'll have to refer to another member of my team for that.

MR. RASMUSSEN: More than 10?

MS. ARMSTRONG: No.

MR. RASMUSSEN: 5? Okay so just supposing it was 7 take away me because I wouldn't do numbers,

Leslie did you do numbers for the industry?

MR. BORTZ: No, we did some numbers but they weren't these. They weren't close to these. On our manufacturer we did some guess on our manufacturer interview and they are just value and --

MR. BROOKMAN: Okay so back to Barton. Pardon me let's let Leslie follow on please go ahead Leslie.

MR. BORTZ: It's a different question.

MR. BROOKMAN: Okay then Barton go ahead.

MR. DAY: I was just going to point out we have been trying to figure out you know how to get reasonable data on this and one of the issues is that if you simply look at model numbers and so forth without shipment data for the specific models it is useless and the additional problem is that as I mentioned there has been a lot of evolution and I went to one major manufacturer at the show as you probably know. I mean several major manufacturers have completely shifted away from standing pilot lights and others you ask them you know well what is your design been like, what about the newly designed

products over the last few years and they are saying you know we have one product that we have designed that has a standing pilot, everything else doesn't.

But trying to get hard data on that I mean we could see the enormous trend, we can see that trend showing up when people are talking about the products that are coming out now as opposed to historical you know products that are still on the market but trailing off. It's just -- I don't think you can look at product literature review as being informative as to what the percentages are and frankly if you have figured out a way to get any reliable data on that you are ahead of us.

MR. BROOKMAN: Leslie?

MR. BORTZ: Can I just ask you --

MR. BROOKMAN: Microphone.

MR. BORTZ: Back to page 23 and 24.

MS. ARMSTRONG: So this is Ashley from DOE and while is he redoing the slides and getting back to slide 23 I just want to point out that while the distribution of the different types of pilot lights will matter later when we talk about the shipments

and the energy use and the energy savings, it will matter for the national impacts and the costs and benefits yes. It doesn't necessarily matter so much for the engineering.

The engineering is looking at what is the cheapest product out there and then what can you do to it to make it more efficient so what you are seeing on the slide at least where Justin was is for those different types of ignition systems, those are the ones that we found that were in product literature predominantly where we took apart products that were the cheapest out there to build right now.

In other words so we are starting from the bottom of the ground and working our way up in terms of cost. As I think you would agree that we should be doing. Now in terms of savings and how you accrue savings that's going to depend a lot on your distribution and we are not there yet. We are going to get there but we are not there yet.

So I think for this point you know what you are seeing on the slide is actually what you would probably want us to do it is how you make sure

you accumulate costs in the best manner but we are going to get to our distribution of what I would call efficiencies which in this case is distribution of different pilot lights later.

MR. BROOKMAN: Leslie?

MR. BORTZ: We are at slide 23 and 24. Slide we is discussing market assessments and all the slides before that you specifically I believe you said this is trying to get us to a definition of what we are covering or a definition of what hearth products means, something to that effect. Is that --

MR. CYMBALSKY: It is the scope to which we analyze the proposed definition yeah. So this is the scope of the products that we included based on the definition.

MR. BORTZ: Then you continued on 24 the next one you have still market assessment, this is estimated shares of overall hearth products market but that's divided very differently. That looks like it's divided by pilot kit types or pilot kits, not by any definition that you have except pilot kits or how pilot kits are run.

MR. CYMBALSKY: So what these numbers are essentially these five numbers here add to 100 so these are what were analyzed.

MR. BORTZ: Right but you are analyzing them because they have different pilot kit types, you have changed your market assessment from assessing for a definition to assessing for pilot kits right?

MS. ARMSTRONG: No.

MR. CYMBALSKY: No, so the difference is in the engineering analysis what we are looking at here is the technology option.

MR. BORTZ: Vented fireplace, insert and stove don't fit a definition that I know of except it would fit a definition for pilot kits. It's the only way you can do it, it's the only thing it could be for isn't it?

MR. ELSZASZ: I guess I don't understand the comment.

MS. ARMSTRONG: Yeah I'm not following but I am happy to have a conversation with you at lunch about what is going on here. You know when we go back to the previous slide and the market assessment

that's just showing the breakdown of the different categories of products based on the shipment data we got on the market.

MR. RASMUSSEN: What's this breakdown for?

MS. ARMSTRONG: What's this? Which one are we talking about?

MR. RASMUSSEN: 24.

MS. ARMSTRONG: Go back to 24 for me, the percentage of projects?

MR. RASMUSSEN: Yeah.

MS. ARMSTRONG: We'll get to this but when we talk about downstream analysis when you give us overall shipment number you are going to see that roughly 56% of the market is this category is a vented fireplace.

MR. BORTZ: Why? Because of the use?

MS. ARMSTRONG: Because the cost and the savings and the distribution of different pilot lights in each of these categories is going to be different.

MR. BORTZ: It has to do with pilot lights.

MS. ARMSTRONG: It has to do with hours of use, energy savings, cost benefit analysis and I think we need to do our due diligence and analyze these separately.

MR. KUPSH: Jim Kupsh. I'm just curious is this simply the DOE statistics, I mean HPBA statistics or did you account for non-reporting industry sales?

MR. ELSZASZ: In the outdoor products we accounted for non-HPBA. We had gotten further information that for outdoor products specifically, non-HPBA manufacturers were much more dominant.

MR. KUPSH: You might find that a few other categories such as unvented gas logs is affected by non-reporting sales also.

MR. ELSZASZ: Okay thank you.

MR. BROOKMAN: Yes please --

MS. ARMSTRONG: So why don't we go back to the engineering past where we were and keeping going because really what we are talking about here is the cost benefit and until we get to that I don't think it's going to really --

MR. BROOKMAN: Okay final question and then we are going to move on, go ahead.

MR. DELAQUILA: Dave Delaquila, consultant for Maxitrol Company. In our cost analysis when you look at unvented heaters the market there you are probably talking about for sure 90% plus currently use let's say the continuous pilot ODS system. In your analysis did you look at the certification cost to re-certify every single model with the new ignition device and what was the base cost analysis that you used?

MR. ELSZASZ: I think that we will get to later when we get to manufacturer impact analysis.

MR. BROOKMAN: Right so we have just another slide or two that we should go through before we break for lunch which will be shortly so let's proceed.

MR. ELSZASZ: This is really the end of the engineering analysis. What I am presenting here is a manufacturer markup and what this represents is essentially the amount of profit that a manufacturer would get by selling one of these units so all it is

is a multiplication factor to the manufacturer production costs.

So what we are talking about is multiplying this you know, these manufacturer production costs by what we estimated to be 1.45 and this was derived through again through the confidential manufacturer interview process so again we can seek comment here on what the MPC's as well as the markup number that would be there.

MR. BROOKMAN: Leslie?

MR. BORTZ: Leslie Bortz, can I apologize once.

MR. BROOKMAN: Just leave it on.

MR. BORTZ: Okay then you will hear what I don't want you to hear.

MR. CYMBALSKY: You are catching on.

MR. BORTZ: Yeah, let's say something costs me $10.00 that means I sell it to my distributor for $14.50.

MR. ELSZASZ: Yes.

MR. BORTZ: To my distributor for $14.50.

MR. ELSZASZ: Right this is not the end

line right.

MR. BROOKMAN: Yes Dana?

MR. MOROZ: Just to confirm this number is an average markup based on the 7 manufacturers you interviewed and was it a cross section of all the different types of products as well?

MR. ELSZASZ: Yes.

MR. MOROZ: Thank you.

MR. BROOKMAN: So you see the comment box there embedded in this slide on manufacturer markup slide 33 additional comments, questions here. As Ashley already said we are going to get into greater detail in a lot of this as we proceed. Let's break for lunch. It's now 12:30 we have made good progress on the day, covered a lot of ground more yet to cover. 12:30 let's break for an hour, please make sure to have this badge with you visible as you walk around the Forrestal Building. This room will be secured so you can leave your stuff here. If you go to the big cafeteria which is down to the ground floor and about a hundred yards in that direction you will have to pass back through a security portal so

you will need an ID at least typically you will.

And there is a Dunkin Donuts, pardon me there's a Subway sub shop where the Dunkin Donuts is down on the ground floor. You know where the restrooms are so we will resume in one hour which will be 1:30 and we have a good start on it we will pick up at 1:30 here.

MR. BROOKMAN: Okay let's resume please take your seats. All set Linda? We are going to pick up where we left off. Thanks for being back here on time everyone we are going to pick up where we left off, markups analysis.

MR. SIAP: Hello I'm David Siap from Lawrence Berkeley National Laboratory. I'm going to be going over the markups analysis, energy use as well as lifecycle costs. Can you guys hear me? As well as lifecycle costs, payback period, shipments, national and regulatory impact analysis.

So the purpose of the markups analysis is to determine the consumer price based on the manufacturer selling price or MSP for both baseline and high efficiency products. DOE also characterized

the distribution channels through which our products move from the manufacturer to the consumer. DOE identified two primary distribution channels shown here, replacement and new construction.

The replacement has a wholesaler and a mechanical contractor between the manufacturer and the consumer and new construction is similar with a general contractor before the consumer.

To Leslie's earlier point there were other distribution channels including retailer analyzed as well however for the retailer market and the retailers function similar to the replacement market except there was a retailer instead of a wholesaler. But for the retailer market DOE wasn't able to -- didn't have enough data to formulate a markup for that market participant, the retailer so it did not go forward with a separate distribution channel at this time.

MR. BORTZ: How did you get at that --

MR. BROOKMAN: Leslie please turn on the microphone.

MR. BORTZ: I'm sorry here I am.

MR. BROOKMAN: Say your name for the record.

MR. BORTZ: The missing Leslie Bortz, Robert H. Peterson Company. How did you get data for mechanical contractors?

MR. SIAP: That's coming up later in the slide. It's through the ACCA 2005 report with the census data.

MR. BORTZ: Maybe they are the same, you know, you can look at them the same way.

MR. BROOKMAN: I didn't get your point there Leslie, I'm sorry.

MR. BORTZ: Well if a wholesaler sells to a mechanical contractor then sells to an end user maybe the retailers is like the mechanical contractor.

MR. BROOKMAN: Got you, okay.

MR. SIAP: Thanks for that. Okay so --

MR. BROOKMAN: The Department is looking for a kind of patterns of use here, patterns of distribution so if you are able to comment on what would be a typical pattern.

MR. BORTZ: I did, yes what I said was we independently came up with we broke out each of the categories that you had before, in other words you had three categories in vented products, three -- we broke out each of them we figured out approximately how much it was et cetera and we figured that 56 point some odd percent were sold through a distribution channel to a retailer.

MR. BROOKMAN: Okay thank you.

MR. SIAP: Thanks, so to formulate these markups DOE analyzed financial data from each market participant and it's important to note that although in practice the markups are applied to the entire hearth product they apply to the ignition component, each component as well.

The table at the bottom lists the data sources for each market participant. The manufacturer markup we have covered previously because as a result of the input from manufacturers. Wholesaler markup is formulated from the hearth report, the mechanical contractor from the ACCA report, general contractor from the latest 2007

census bureau data and sales tax from the 2013 sales tax clearing house.

MR. BROOKMAN: Yes Rett?

MR. RASMUSSEN: The wholesaler markup does the HARDI profit report include fireplace distributors?

MR. SIAP: I am not sure on that one.

MR. RASMUSSEN: What does it include?

MR. BROOKMAN: Greg Rosenquist?

MR. ROSENQUIST: Hi this is Greg Rosenquist to help him out. It mostly covers major HVAC contractors and provides some level of detail on their size. It doesn't explicitly call out you know the distributors of the industry.

MR. RASMUSSEN: Distributors of these products okay.

MR. ROSENQUIST: Specifically yeah. I would certainly welcome any data.

MR. RASMUSSEN: I was going to say on what basis do you provide equivalency between this and fireplace distributors?

MR. ROSENQUIST: We just use the same

data. I mean we use that same data out of that report and make the assumption that it is representative of this industry as well.

MR. RASMUSSEN: And you could assume that it's the same for toy distributors and for Twinkie distributors and all of that?

MR. ROSESNQUIST: I wouldn't go that far.

MR. RASMUSSEN: But not necessarily specific to this.

MR. ROSENQUIST: Again absent any data this is what we went with.

MR. RASMUSSEN: Thank you.

MR. BORTZ: Leslie Bortz again does this mean that what you are saying is that the overall market for -- or the overall markup for a replacement product is 3.23 and for a new construction is 3.99? Is that what you are saying?

MR. BROOKMAN: You are jumping ahead and yes.

MR. BORTZ: That's ridiculous.

MR. BROOKMAN: Let's let him get to that point and then we will get additional comments.

MR. BORTZ: Okay I just wanted to say it's ridiculous.

MR. BROOKMAN: Okay we will capture that in detail. Let's proceed with the presentation.

MS. ARMSTRONG: So wait I want to go back to that point. This is Ashley from DOE. I think your point is well taken that we didn't have fireplace specific data but it was generally from heating, ventilation, air conditioning, those types of contractors that distribute the products so are you telling me the distributors of fireplaces are exclusive just to fireplaces they do not distribute any other type of heating, ventilation or air conditioning products or that they are always just fireplaces?

MR. BORTZ: Often.

MR. RASMUSSEN: Rett Rasmussen yeah that is correct. You have specific fireplace distributors. They don't necessarily sell furnaces or water heaters or things like that. Those are different types of products with different margin structures I would imagine than what our types of

products have in this industry. You know I am jumping ahead but I agree I don't have hard fast numbers, but they just seemed low and they are there for the --

MR. KUPSH: Jim Kupsh, IT Controls. Yes the HARDI members are normally not your fireplace distributor type people, they are specific to HVAC cell replacement parts and it's -- I'm trying to think of people, not John Stone, but let's say Larson in the Midwest, CC Dixon in the southeast, RE Michael on the east coast, those are your HARDI type wholesalers.

MR. RASMUSSEN: Yeah Rett Rasmussen they are not fireplace distributors.

MS. ARMSTRONG: Okay.

MR. RASMUSSEN: They are different animals and that's our whole point on definition is it is a different animal.

MS. ARMSTRONG: I think that's fine and your point is well taken except for do you have a suggestion then on where we could look for data that's more specific on you know in absence of that

we welcome your feedback, we are happy to revise the analysis to consider a more specific distribution chain but we need your help.

MR. RASMUSSEN: Rett Rasmussen. Again we are a small mom and pop industry we don't have these types of you know these types of data that you are looking for in most cases. We just do our little job and sell product and make people happy that's what we do.

MS. ARMSTRONG: But you have enough of an inclination to say we are wrong?

MR. BORTZ: Yes.

MS. ARMSTRONG: So that's where I'm trying to or at least assert that we are wrong. So how do we reconcile that you have the knowledge and the expertise in your industry to assert we are wrong but yet -- so can you help us connect the dots?

MR. BORTZ: Yes, we will try to help you.

MS. ARMSTRONG: Thank you.

MR. BROOKMAN: Okay thank you Leslie. Dana you have a comment?

MR. MOROZ: It's private. I think what we

are not saying is it is the wrong assumption, that doesn't suggest that we have that information. We are saying that it is a different distribution network and that is consistent with our product line as well.

MR. BORTZ: What I am saying again Leslie is the replacement market cannot be that much lower than a builder market, it just can't be.

MS. ARMSTRONG: And is that specific to log sets or is that specific to all the various categories of fireplaces we are talking about.

MR. BORTZ: Fireplaces I believe you will find fireplace people here that can answer that question. I believe it is that if you sell direct to builders there is a different markup than if you sell to the replacement market. Somebody help me, can you help?

MR. BROOKMAN: Dana go ahead.

MR. MOROZ: Dana Moroz from Wolf Steel. I would agree with that there is a different markup depending on who the customer is.

MS. ARMSTRONG: Sure.

MR. RASMUSSEN: Rett Rasmussen and we are a manufacturer. I don't know; you would have to poll the actual distributors and what you have shown is here is just data from a distribution channel that is not of what this proposed rule is about and that's where I just go back to DOE and say shouldn't you have some data specific to this industry that you wish to regulate.

MR. BROOKMAN: Jim did you have a comment here? I thought you were trying no okay, yes please Barton?

MR. DAY: Yes this is Barton. Just a general comment -- you know I think sometimes there's a perception that you know that we've got all of this data and information and we are not sharing it and the truth of the matter is we don't have the information. This industry is just as Rett said it's an industry with two manufacturers that are not small businesses and a lot of the issues that are in play here, they are required pieces for the economic analysis for the energy use nobody has ever collected the data. It just doesn't exist.

We don't have it and I guess part of what I think you hear people reacting to is just the ready application okay there's a blank in our regulatory analysis we have to have a number to put in the blank so we will just find a number and in the absence of data we will just make an assumption whether there is a basis for the assumption or not and I think that is the perception and I think that's what people are responding to and really the point I wanted to make is we don't have -- we are not sitting on a pile of data.

We can't give you all the answers, we don't know the answers, a lot of these issues just have not been studied and that's the problem is that you are going into a rulemaking where the basic data is just not there.

MR. BROOKMAN: Press on.

MR. SIAP: So DOE developed two markups for each product market participant, the baseline and incremental market. We are on slide 36. The replacement markup relates the MSP of the baseline products to the consumer purchase price and the

baseline markup is applied to the baseline MSP only to determine the baseline consumer purchase price.

Incremental markups relate to change in the MSP of higher efficiency products to the change in the consumer purchase price. This covers only expenses that ferry with MSP such as operating expenses and profit. Fixed costs such as overhead and labor we do not scale with increased efficiency.

To clarify the incremental markup is applied to the MSP difference only of higher efficiency and baseline products.

MR. BORTZ: Leslie Bortz, if I have a product that costs me a dollar can you explain what this says?

MR. SIAP: Sure so if you had well if you had one product that cost a dollar and another that cost two dollars and so the base and the dollar is the baseline product and the baseline markup applies only to the baseline that first dollar.

MR. BORTZ: Okay.

MR. SIAP: For the higher efficiency product, the two dollar product it would be the first

dollar is the baseline markup is applied to the first dollar and the incremental markup is applied to the second dollar and the sum is then your total consumer price.

MR. BORTZ: So if I have a product that is better or more efficient or whatever it costs me two dollars I will get five dollars, my price will be $5.33?

MR. SIAP: That's correct.

MR. BORTZ: What's the use of making things better?

MR. DAY: I have a really simple question and that is as you were looking at these issues did you look at the individual types of product differently or did you just look at everything as though they were the same?

MR. SIAP: There was consideration by type but primarily just the hearth product was viewed as the class so primarily the same.

MR. DAY: So one analysis for everything?

MR. SIAP: Yes.

MR. DAY: Yes, okay thank you.

MR. BROOKMAN: Leslie go ahead.

MR. BORTZ: I would like to say that we need -- I'm not sure that we need because I don't -- we are not through this and I don't know how it is being used but we need a two-step distribution markup system. All of our products are sold that way and I believe all of your products, no?

MR. BROOKMAN: When you say two step Leslie you mean?

MR. BORTZ: Distributor to retailer.

MR. BROOKMAN: Gotcha, Rett?

MR. RASMUSSEN: Leslie, Rett Rasmussen this brings up a good point. Is there are many different ways that manufacturers get their products to market. One company tends to do the two-step distribution model. Some people go strictly to the mass merchants, to your Lowe's and Home Depot and people like that. Others go to internet retailers, some go -- not as many in this industry consumer direct, but some and some go dealer direct, some go builder direct, a combination of all of these and just as you have so many different small companies

they all find their little niche in the marketplace that allows them to make payroll every week and remain in business year after year and some of them not.

So you know a one size fits all is very difficult because there is not a one size fits all company in this industry.

MR. BROOKMAN: Okay.

MR. RASMUSSEN: Thank you.

MR. SIAP: Okay so here we have the results as I have already touched on a little bit. The top table gives the results per market participant for both replacement and new construction distribution channel and baseline and incremental markup. The manufacturer markup is the same as discussed previously at 1.45 and the bottom table gives the aggregated markup for both the baseline and incremental case.

MR. BROOKMAN: Leslie?

MR. BORTZ: The bottom indicates that there is like a ratio of like 3 to 1 more replacement something like that?

MR. SIAP: Yes.

MR. BORTZ: What's that based on?

MR. SIAP: The ratio of replacement to new construction was based on the ratio of the current stock as listed in the residential energy consumption survey, most recent data justified against the latest shipment data.

MR. BORTZ: Okay.

MR. SIAP: For that same year.

MR. BORTZ: What does that have to do with our industry?

MR. SIAP: Well the survey lists the year the house was built and whether the so the ratio there gives you the ratio of new construction to non.

MR. BORTZ: But if it is a furnace or something like that or what products HVAC is that what you said?

MR. SIAP: Sorry?

MR. BORTZ: Did you say that the products that this is based on?

MR. SIAP: The residential energy consumption, the REC survey gives hearth product --

lists hearth products exclusively for fireplaces.

MR. BORTZ: I'm just at a loss.

MR. ROSENQUIST: I agree are you getting at the shipments to the replacement market versus the new construction market?

MR.SIAP: Yes.

MR. ROSENQUIST: So generally speaking in most products I'm either going to use round about figures, 75 to 80% of shipments generally go into the replacement market just because the sheer volume of the unit that is in the stock --

MR. BORTZ: A refrigerator?

MR. ROSENQUIST: Yeah.

MR. BORTZ: Yeah okay.

MR. ROSENQUIST: If you have 10 million refrigerators shipped each year, 8 million are going into the existing stock, the rest going into new construction, so he is getting at a 3 to 1 ratio here.

MR. BORTZ: Yes, those are really also done through a retailer, the replacement market. It's not a contractor I don't understand when you say

mechanical contractor, that's just the guy who puts it in. You buy it at Sears. I don't understand the terminology.

MR. ROSENQUIST: Yeah if you look back at the distribution channels again the assumption in this analysis is that every party in that distribution channel is marking up the equipment until it finally gets to the consumer.

MR. BORTZ: Right.

MR. ROSENQUIST: And you are talking about distribution channel where there is manufacturer to retailer.

MR. BORTZ: I'm talking about manufacturer to distributor to retailer.

MR. ROSENQUIST: To retailer and then to consumer right?

MR. BORTZ: Right.

MR. ROSENQUIST: And in that distribution channel we still say that there is going to be a general contractor because someone has to install it. We are not saying that the consumer is doing it themselves.

MR. BORTZ: You are right.

MS. ARMSTRONG: So if you look on --

MR. ROSENQUIST: But the main thing is here is this is what we use in the analysis, these two distribution channels and what you are saying is that something else, there is other distribution channels that exist.

MR. BORTZ: Right and it seems like there are other distribution channels than what you are using.

MS. ARMSTRONG: So these are the two we are using right, look at those channels, the flow diagrams. So is there is a missing entity, so the left is replacement and the right is new construction, so are we missing an entity?

MR. BORTZ: Yes.

MS. ARMSTRONG: And what that entity is called?

MR. BORTZ: The retailer.

MS. ARMSTRONG: So you think there should be a retailer in between the wholesaler and the contractor or between the contractor and the -- the

contractor you are saying is just the installer?

MR. BORTZ: Right.

MS. ARMSTRONG: So you are saying instead of the contractor we should have a retailer there and that after the consumer purchases it from a retailer they will then get a contractor to install it did I get it?

MR. BORTZ: No well close.

MS. ARMSTRONG: Okay.

MR. BORTZ: And that can happen but normally what happens is the retailer also either does himself or has contractors to do it.

MS. ARMSTRONG: Okay so what we are calling --

MR. BORTZ: And mechanical contractor and the contractor just makes a fee he doesn't mark up.

MS. ARMSTRONG: Okay so and generally speaking do you all agree that these two change if you change mechanical contractor to retailer are generally the two chains that would govern you know all the different categories of hearths we are talking about here.

MR. DIRCKS: This is Peter Dircks from HHT. I think what you are hearing from the group here is it is very different based on what company you are.

MS. ARMSTRONG: Yep.

MR. DIRCKS: What market you are serving, what end consumer you are serving and how you go to market, that's really what these two gentlemen are saying. Some companies may use a two-step distribution some of us used direct through retail it also differentiates by replacement of new construction. I think what you have probably done there Greg is looked at the HVAC market based on what your comments were earlier and assumed that there is this two or three-step process. The hearth industry is different, it's a specialty hearth channel because of the distribution -- there's key skillsets required in order to distribute and install.

So I think for us to give you some guidance here today in order to clarify this is probably quite difficult because there is a lot of different paths to market. I think what you are

saying or I think what you are hearing is that is not correct. And so we would need to come back to you with other guidance at the appropriate time to figure out exactly what was the arithmetic that you guys used for this.

MS. ARMSTRONG: I think we would welcome that guidance and we would be happy to incorporate it if you would be willing to put it together.

MR. BROOKMAN: Leslie go ahead. Leslie on the record go ahead.

MR. BORTZ: I think what you said is more attuned to what we do and we are us we are not him and him.

MR. BROOKMAN: Ashley's re-characterization, yes okay thank you.

MR. BORTZ: Thanks.

MR. BROOKMAN: Okay now we are moving on.

MR. SAIP: The next section is the energy use analysis slide 38. The purpose is to determine annual energy consumption of the hearth product technician system. Resulting energy costs are inputs to the lifecycle costs and payback period analysis.

So here we have a brief summary of the energy's methodology and I will be going over walking through each point later on.

The energy use is determined through the equation in the box there. The Qp is either the standing pilot or intermittent pilot ignition system power as determined in the engineering analysis. This is a fuel input for standing pilot and electrical power for intermittent pilot. OHP is the operating hours of the pilot the on-time of the standing pilot or intermittent pilot ignition system.

For a standing pilot it is determined through field studies and RECs 2009 household data and for intermittent pilot based on the hearth product main burner operation. The final term secondary effects are the impact of ignition operation on households space condition system energy use. In the heating season the standing pilot is counted as beneficial heat and reduces furnace operating hours and in the non-heating season it is counted as an additional cooling load and increases cooling.

MR. BROOKMAN: Steve Rosenstock?

MR. ROSENSTOCK: Steve Rosenstock, Edison Electric Institute. For the non-heating season I was looking at the technical support document and I was wondering what kind of diversity factor did you use for pilot lights. In other words what percentage did you assume were turned off during the cooling season?

MR. SIAP: That is coming up on slide 40 or 39 for the steady pilot operating hours. You will see a distribution there.

MR. BROOKMAN: We are going to get to that in a little bit.

Frank Stanonik?

MR. STANONIK: Frank Stanonik AHRI. I think your equation at least as you have explained it here is incorrect so you are defining ignition system power as standing pilot or intermittent pilot ignition system power and then you define the intermittent pilot ignition system power only as the electrical power okay, but if I have an intermittent pilot ignition system okay what happens is I use electrical power to ignite the pilot and then the

pilot is consuming gas during at least the burner operating cycle.

So in that situation the overall energy use of the pilot would be both the electrical power I used to light it and whatever gas was burned during the period it was on and yes your explanation says the IPI I'm only going to count my electrical power.

MR. SIAP: This is the concern with the standby use so that would be active mode energies. So I tried to characterize the standby mode energy use as opposed to --

MR. STANONIK: Wow Frank Stanonik AHRI I mean I have this bad habit of just reading words. It says is determined annual energy consumption of the hearth product ignition system. Well I didn't see standby in there at all. That tells me just how much energy the pilot is going to use. If that's the case you really need to rewrite this and be a little clearer.

MR. BROOKMAN: Okay thank you Frank. Yes Rett?

MR. RASMUSSEN: Rett Rasmussen. I assume

you are just for your electrical power consumed. You are just taking into account 120 volt or your house current electricity. Do you also have some allowance for battery consumption and the cost from the replacement of batteries?

MR. SIAP: For as far as cost that's kind of more on the LCC analysis section we don't have a cost for replacement of batteries.

MR. RASMUSSEN: So there's nothing within this equation here that takes into account batteries, you are just assuming it's line electricity?

MR. SIAP: We don't assume a different power requirement for those two cases.

MR. RASMUSSEN: Rett Rasmussen so when we get into the actual costing of it then we will see that you are either doing it just with electricity or also including batteries.

MR. BROOKMAN: Okay Barton?

MR. DAY: I wanted to comment on --

MR. BROOKMAN: Your mic.

MR. DAY: I was going to comment on the use of the RECs data but we might be better to hold

that to the next one. You can either turn to me later.

MR. BROOKMAN: Yes. Comments here before we move on.

MR. CYMBALSKY: This is John from Doe. I want to just go back to Leslie's point about how these things are purchased so at least in this area it's very common for the contractor to sell directly. I mean they have huge I mean www.gaslogs.com takes you to Cypress Air which is a very major contractor here that does HVAC and fireplaces. They are also a contractor.

MR. BORTZ: They are a retailer.

MR. CYMBALSKY: So I think we might be talking about the same thing.

MR. BORTZ: We might be but I don't think you are they are a retailer buying from a distributor.

MR. CYMBALSKY: So will there be two steps or one step if we go back to that chain, that's what we are trying to --

MR. BORTZ: There will be the same

two-steps that there always are, excuse me, Leslie Bortz, the retailer sells the product and then the contractor, whether it is the same guy or not, charges a fee to install it.

MR. CYMBALSKY: So if I go to gaslogs.com they are having their big sale and I call them up. They have actually been at my house before so I know these guys but Cypress Air the guy comes in, he sold me whatever it is he sold and he is installing it. So is that two people or one person, in your mind?

MR. BORTZ: It is two people that can be one, but it is two separate functions.

MR. CYMBALSKY: Two fees so.

MR. BORTZ: There are two fees there. There is the markup he gets for selling the product and the fee he gets for installing it.

MR. CYMBALSKY: Just to go back again to re-emphasize Ashley's point so the mechanical contractor should be a retailer before in the same box or a different box?

MR. BORTZ: I don't know.

MR. BROOKMAN: Several people wish to

speak. Go ahead Mike Rivest?

MR. RIVEST: This is Mike Rivest. These are intended to be an ownership flow as well so in this case the contractor and his markup would be part of an installation cost and not necessarily part of the this distribution chain.

MR. RIVEST: In that case in that situation, you know his retailer/contractor but it is one step.

MR. BORTZ: Well not necessarily because --

MR. RIVEST: What I mean by step is an ownership step.

MR. BROOKMAN: Let's hear from this person behind you.

MS. FEINSTEIN: Rachel Feinstsein, Hearth, Patio, Barbeque Association. I have been -- I have come into this issue of retailer/contractor licensing in the last six months or so as it has become a growing issue for our retailers. In some states retailers who sell these products and then they want

to go out and install the products for their customers they have to be a licensed contractor of some kind within their state.

In Virginia right now the license is I think it is alternative energy contractor and also HVAC licensed contractors or mechanical contractors can also install but they are usually contracted by a retailer, so a retailer pays them an annual fee almost an annual salary to be the contractor for their location.

MR. BROOKMAN: Do they work for the retailer?

MS. FEINSTEIN: In some cases yes.

MR. BROOKMAN: So from the consumer's point of view they just see the one thing though right?

MR. FEINSTEIN: The retailers, they see the retailer the contractor who is hired by the retailer to go out and install.

MR. BROOKMAN: So when the consumer gets the bill let's say it's $1,000.00 they don't know that a cut went somewhere and one cut went somewhere

else.

MR. BORTZ: You can buy it and take it home.

MR. BROOKMAN: You can, you can but.

MR. BORTZ: You won't follow our instructions because you need to be a qualified scholar to do it, but people do it they buy it and take it home and they install it themselves or they hire a plumber or a qualified installer.

MR. BROOKMAN: Okay.

MR. CYMBALSKY: So I guess obviously it has been done differently in different places but I guess what we are interested in is to try to get that final price correct. I mean frankly if there is five steps or three steps is the beginning to the end.

MR. BORTZ: Right it doesn't matter there is a markup to the person who is selling it and there is a cost to installing it.

MR. BROOKMAN: Okay, Rett final comment?

MR. RASMUSSEN: Rett Rasmussen. Right, some of what you are saying John when you look at the Cypress Air that's marketing but the functions within

that are multiple -- you have got the dealer function, you have got the contractor function. Some areas of the country require the mechanical contractors Rachel said, some do not.

The whole United States is as varied in their requirements for installation as there are different manufacturers and different means of going to market, further complicating the issue, so, yes.

MR. BORTZ: Matchless ones, easier ones to install and harder ones to install.

MR. BROOKMAN: Okay are we ready to move on now, I think so.

MR. SIAP: There's a question in the back.

MR. HOUCK: James Houck, I had a question on your slide 38. How did you calculate the benefit of the heating season?

MR. SIAP: That's going to be coming up in about 3-4 slides.

MR. HOUCK: Okay I'll ask the question then.

MR. SIAP: The secondary yeah.

MR. BROOKMAN: Yes Jack?

MR. GOLDMAN: Jack Goldman just a quick question. If you were to put parenthesis around the first step --

MR. SIAP: Yes.

MR. GOLDMAN: In that equation would it be QP times OHP or QP times OHP plus secondary because they could have different results depending on that.

MR. SIAP: It's yeah so you do the multiplication first in this case, yes.

MR. BROOKMAN: Okay keep going.

MR. SIAP: So the buildings -- first I am going to talk about the building sample before going back into the depths of the energy use. The building sample is how DOE characterizes the households which have hearth products. Starting from the latest RECs data which is the residential energy consumption survey -- we first decided to get those which have a fireplace and those which use either natural gas or propane.

Finally if it has a flue we added to the vented hearth product sample and if it is flue-less we add it to the vent-less hearth product sample.

The vented sample was 541 households representative of 4.67 million households nationally. When the vent-less sample was 171 households representative of 1.83 households nationally, yes question?

MR. BROOKMAN: Barton?

MR. DAY: The issue with the RECs data as near as I can tell the only gas hearth products that are covered by the RECs data at all are fireplaces that are used for secondary heating -- and there's no data on inputs, there's no data on the presence or absence of pilot lights. There is no information on pilot light use patterns, there is some limited data on product use patterns, product use frequency but to me the issue that

leaps out is that fireplaces that are used for secondary heating are a very small fraction of fireplaces so the data is not even representative of fireplaces and I can tell you that if there's any resemblance between that and data for patio heaters it's random.

I mean there is absolutely nothing to link you know this data for any other product and I don't

1 understand, maybe I'm missing something in the RECs
2 data and there is all this information about other
3 products I don't know, there's nothing I can find and
4 my perception from looking at it is that you are
5 taking data set for an extremely narrow range of
6 products and just applying it to everything because
7 there is no other numbers, am I missing data?
8 MR. SIAP: Well RECs does include the
9 fireplace only but we use it to establish the house,
10 the characteristics of the households themselves, we
11 don't use it for studying pilot market share or
12 behavior, any of that so.
13 MR. BROOKMAN: Leslie?
14 MR. BORTZ: Leslie Bortz, Barton if you
15 are right -- Barton, if you are right doesn't that
16 mean this stops at the first diamond?
17 MR. DAY: Yeah.
18 MR. BORTZ: That's it.
19 MR. DAY: Yeah by definition well it's the
20 first diamond is yes.
21 MR. BORTZ: It's everything that there is.
22 MR. DAY: It's just that all the other

products drop out there.

MR. BORTZ: Everything's out then.

MR. DAY: Every category drops out because fireplaces used for space heating is --

MR. BORTZ: Is the only thing they have.

MR. BROOKS: Can you restate how what the specifics are in RECs?

MR. SIAP: So um although that's what's the diamond says and that's strictly how the question is asked the RECs provides a measurement of the fuel consumed as well and if we look at the number of units identified in RECs it's not a small portion of all hearth product shipments, it's a large portion relative to the shipment so maybe this document could be labeled better.

MR. DAY: I looked at the questionnaire and the questionnaire on residential energy use, the only question that addresses any of the products we are talking about is fireplaces used for heating. The data summaries at the website that you linked us to in the notice are just fireplaces used for secondary heating.

If there's some data on any other product --

MR. CYMBALSKY: That would probably be the majority of what we are talking about here, I mean it's houses that have a gas for example -- have a gas furnace and they have a fireplace, a gas fireplace of whatever type we sell out there.

RECs would consider that secondary heating because their primary heater is their gas furnace.

MR. DAY: Well it actually doesn't you can look at the total of single family homes --

MR. CYMBALSKY: Right.

MR. DAY: That are accounted for and fireplaces used for secondary heating and you can add up wood and gas and propane and you can add up all the categories of fireplaces and I forget the total single family households, like 78 million is what the RECs data assumes and there's like 4 million fireplaces total.

And for the last 30 years or more about right at 50% of all newly constructed single family homes have fireplaces so the 35 plus million

fireplaces all but like 4 and I don't remember the numbers off the top of my head. I think that's right all but 4 are missing from the data side.

Well they are not missing from the data side because there is a category for products that are used for secondary heating which is where the vast majority of all the products that we are talking about would fall.

MR. BROOKMAN: James go ahead with your comment?

MR. HOUCK: This is James Houck. Yes there is a couple of issues with the data set. One is it's based on the consumer's response they are asked if they use their fireplace for secondary heat. The rule of thumb, working with fireplaces in residential homes is about a third aren't used, about a third are used for aesthetics and a third are truly used for a secondary heat source. But very few people use a fireplace for a cooling effect.

When you ask a person that uses it primarily for aesthetics they say oh yes secondary heat so that puts an incredible uncertainty in this

number because it is not really people that are using the secondary heat. When someone asks you do you use your fireplace for secondary heat source I say yes. The other issue is it doesn't distinguish between fireplaces that have an insert in them or not. Of course a fireplace insert is more designed for heating than I guess what you would call a true fireplace so there is a pre-disposition for this number to include fireplace inserts, not just the whole universe of fireplaces.

MR. BROOKMAN: Okay thank you.

MR. ROSENQUIST: You have to remember, this is Greg Rosenquist form LBNL is that we are using RECs to create a building sample for all vented hearth products and all unvented hearth products and so we are using that same building sample for vented gas logs and vented gas fireplaces as a basis for our analysis when we do the lifecycle cost analysis.

Where we get that weighting correctly in terms of the market share of each product is when we go back into the shipments and national impact analysis. Here with the lifecycle cost analysis we

are trying to determine what percentage of consumers would benefit or burden from replacing their standing pilot with intermittent pilot ignition device.

So I hope that's clear again we are just trying to create what is a representative building sample with sort of sparse information that we have from RECs. So we can perform our lifecycle cost and payback period.

MR. BROOKMAN: Leslie get close to that microphone.

` MR. BORTZ: You said you are trying to figure out the percentage that would be helped by going to an intermittent pilot system, isn't that 100%?

MR. ROSENQUIST: I say benefit what I mean is on a cost basis right. If the benefits of the energy savings outweigh the increased cost of the product.

MR. BORTZ: Okay.

MR. ROSENQUIST: That's what I mean.

MR. SIAP: Okay so moving on. In our energy use determination the next term is the

ignition system representative power. This is determined in the engineering analysis, we have a table here listing the representative power used for each hearth product type by standing pilot, intermittent pilot and also for the hearth product main burner, yes?

MR. ROSENSTOCK: Question Steve Rosenstock, Edison Electric Institute. You are showing an ignition wattage of 50 watts that's across every single product, there is no variation, is that like an average value. The reason I am asking is I was over a neighbor's house and they had a huge propane grill, gas grill, sorry don't want to get anyone mad at me it was a gas grill and they were having trouble with the ignition so they changed out a AA battery as I recall so I see 50 watts, is that the nameplate rating or is the actual wattage on there when they are putting in the ignition when the actual ignition is on?

MR. SIAP: That's an average it may be a conservatively high average but yes it is meant to be an average.

MR. ROSENSTOCK: Again Steve Rosenstock, again was that based on nameplate or actually like a watt meter?

MR. SIAP: I would have to defer to the engineering analysis team to --

MR. ROSENSTOCK: Steve Rosenstock EEI. I looked in the technical support document and I wasn't finding anything, thanks.

MR. BROOKMAN: Jim?

MR. KUPSH: I think the actual opposite, if you look at your unvented fireplace, inserts, stoves, standing pilot and unvented gas log sets the gas consumed by both of those applications is effectively the same, more of the same pilot, they cannot be different they use the same amount of gas.

And so the fact that you are off by 50% on the unvented fireplace insert stove makes me believe that there was not any true testing done because it is unrealistic, those should be very, very close to each other. It's effectively the same pilot, one has an extra device attached to it but the burning is all the same. So I have a hard time with the accuracy

there.

MR. SIAP: Okay.

MR. BROOKMAN: Yes Barton?

MR. DAY: Yes where did the main burner BTU numbers come from and why do they matter? I'm having a hard time understanding what the relevance on this is?

MR. SIAP: Well the relevance of them is coming up there is very important in determining the intermittent pilot operating hours, it will come in a couple of slides. As far as the magnitude how they are determined I would defer to the engineering analysis team.

MR. BROOKMAN: Microphone, Justin?

MR. ELSZASZ: Justin Elszasz, Navigant Consulting. The main burner numbers are again averages and there are two primary sources to that. One was again the product data base that I mentioned earlier that included the model name information as well as ignition type and you know the number that you see there, the main burner fuel input.

And the other was they were asking through

a confidential manufacturer of these.

MR. DAY: When you say I'm sorry this is Barton Day, and you said data based are you referring to just information you collected from literature?

MR. ELSZASZ: Yes.

MR. DAY: So no adjustment well obviously no adjustment for product shipments and so forth it's just how many products have this and how many have that?

MR. ELSZASZ: Right and again it was also refined during the interview process so manufacturers were allowed the opportunity to comment on that number.

MR. BROOKMAN: Leslie?

MR. BORTZ: Leslie, you have 50,000 I don't know if it matters yet but you have 50,000 for outdoor fireplaces I think somewhere else you had 25. If you can find it back -- it's a different number.

MR. BROOKMAN: Are you following him?

MR. SIAP: I'm not sure what you are referring to it might have been --

MR. BORTZ: An outdoor I'm sorry, Leslie.

The main burner in the outdoor fireplaces uses 50,000 BTU's. I think somewhere else you said it used 25.

MR. BROOKMAN: Oh I see, okay.

MR. CYMBALSKY: I've gone back in the whole slide deck this is the first time I have seen this number.

MR. BORTZ: It may have been in your TSD or somewhere. I don't know if it matters.

MR. BROOKMAN: Okay let's move on.

MR. SIAP: Okay next here is the operating hours of the pilot. First we are going to go over the standing pilot operating hours. DOE identified three modes for gas fired hearth products in the field study. 40% of users left their standing pilot on all year, 20% turned their pilot off daily when in use and the remaining 40% mode three had higher variation with many turning their standing pilot off at the end of the heating season. Question Barton?

MR. DAY: Barton Day. The -- I mean the obvious question is where did the data come from for this. You site a study and I guess my first question is do you actually have the study and if so can it be

made available for review and comment? The magazine article just suggests that there are just suggests numbers for fireplaces you know for what was on the market, actually what was installed or in use 20 years ago.

MR. SIAP: So we have -- the numbers in that article are what we have. We also found more recent survey data, not field data 2007 housing environment study shows that 44% of users turned their standing pilot off at the end of the heating season but --

MR. DAY: I'm sorry what's the additional information I couldn't quite hear you.

MR. SIAP: The housing and environment study in 2007.

MR. BORTZ: Leslie Bortz. It said in 2007 that 44% of people turned their pilots off at the end of the season?

MR. SIAP: Yes.

MR. BORTZ: And you are going to say in 2021 that number is going to be 40%?

MR. SIAP: Well I bring that up as it is

consistent with the 1997 number but if you have different data we would be happy to take it into consideration.

MR. BROOKMAN: Barton?

MR. DAY: This is Barton Day and that's the issue is there is no data. There is not a single data point that I am aware of as to you know used patterns of pilot lights on. Any products other than this very limited data on fireplaces with an old design. If there is a more recent study that addresses any of these products it would be good to see that but again you know a point we made early on is these products, they are all different and a pattern of consumer behavior with respect to one type of product is not necessarily going to have anything to do with a pattern of behavior as to other products.

And one of the key issues here that looks like was not considered at all is that the -- one of the key factors influencing consumer behavior is ease of pilot light control and you know it's obvious that if you have to crawl on your hands and knees with a

screwdriver and a flashlight to operate a pilot light, one could imagine that that's not going to happen all the time.

If it takes the flip of a switch on a handheld remote like turning off the light as you leave a room, a whole different ballgame and those controls are out there they exist, they are increasingly prevalent and for some styles of product you know the controls are so easy that the presumption that pilots are going to be left on indefinitely is just incredible.

And without having any data on any products without any information on the configuration of the pilot light controls I would say there is absolutely no evidence to permit any analysis based on pilot light use patterns and I understand in your analysis you have got blanks to fill in but you can't fill in blanks without data and there's not data.

MR. SIAP: So there is data and we are presenting it here and so this is an ask of whoever to provide more recent data. So you have asserted that this new product is becoming more prevalent.

MR. DAY: This industry has no data.

MR. SIAP: Okay so to back up your assertion there must be something.

MR. DAY: The assertion is there is no data.

MR. SIAP: No but he asserted that this new On Demand technology is running you know penetrating into the market.

MR. CYMBALSKY: Why would people pay for it if they weren't going to use it.

MR. BROOKMAN: Yeah, this gentleman here please say your name. Do you want to get in here?

MR. REOTT: Raymond Reott. The slide that is up on the board right now has the wrong numbers according to the TSD. According to the TSD table 7 3.1 page 7-6 only 20% of the people leave their standing pilot on all year and 40% turn them off daily so those first two figures on the chart on the wall there are reversed actually.

MR. BROOKMAN: Thank you, yes James?

MR. HOUCK: James Houck. I would like to comment what Barton just talked about. I want to

point out that that study was done in Canada in 1997 and I don't have it in front of me but I believe there was only 14 homes that did not turn their pilot light off. Now the statistics on that --

MR. BROOKMAN: Was that the end of the season?

MR. HOUCK: Yes, I believe that is how it was in the study I would have to look at it again to be sure on that. Something like that, the statistics are staggering when you consider there is probably around 14 million plus or minus gas fireplaces in the United States so that's .0001 percent of the total population that you are basing this assumption on. In Canada in 1997 so I would say that means nothing.

MR. BROOKMAN: Thank you yes Dana?

MR. MOROZ: Dana Moroz, Wolf Steel. I would also like to make the comment that based on this information or the date this information was accrued is like going back to caveman days. We live in the information world. As a manufacturer I can tell you we do a great deal to educate consumers today of both the use of the pilot and how to turn it

off that wasn't available back then. You can go on YouTube and find information on how to turn off almost any pilot, that didn't exist in 1997 so to just draw those numbers out and say they are still valid today lacks credibility.

MR. BROOKMAN: Jim?

MR. KUPSH: Jim Kupsh. To add to what Dana is saying is if you take a look at and as a control manufacturer, the percentage of non-standing pilot IPI appliances in 1997 I doubt it reach 1 or 2%. It is significantly higher today and all of those appliances turn off the pilot on every single cycle or have the ability to do that.

And so to in any way suggest that this data from 1997 can be even considered as a framework to what's occurring today is unrealistic.

` ` MR. BROOKMAN: Okay yes Peter?

` MR. DIRCKS: Yes Peter HHT. You mentioned that the study from 2007 is the housing and environment study who was the actual source, I mean what's the company that put it out?

MR. SIAP: StatCan distributed the report citing that study.

MR. DIRCKS: I'm sorry I couldn't hear you.

MR. SIAP: StatCan provided the source, provided the report, the source.

MR. DIRCKS: All right and I have a followed comment. I think what you are hearing from most of the people in the room here not only on this issue but even the one earlier on distribution and even just based on the energy used by the consumers is it really does go back to this definitional issue of what is the definition of the products and what is the intended scope of my opinion because consumers are buying all of these products for different reasons and that was articulated earlier.

There's a different between what a consumer is looking for in a gas fireplace versus an insert versus a gas log so I think there is actually a theme here in the last three topics that we have covered by lumping all of this together, over simplifying and using data that's you know, 15, 18

years old is what's really giving us a lot of questions with the integrity of the information as well as how we can best respond.

MR. BROOKMAN: Okay James?

MR. HOUCK: Yes James Houck. Regarding that Canadian data in 2007 again I don't have it in front of me so my number is off a little bit but they had three categories of responses in that survey they turned their pilot light off in the summer, or they didn't turn their pilot light off in the summer and no response.

And there were more no responses I believe or at least in the same magnitude of the other two so again that data is very questionable.

MR. BROOKMAN: Frank Stanonik.

MR. STANONIK: One little comment, I'm hearing a lot of references to Canadian studies. I just want to make sure everyone is aware that when it comes to vent-free gas fired products, those products in fact are not allowed, or I will say they are not allowed in Canada so any of the Canadian studies that look at fireplace pilot use have no relevance to

vent-free products because in fact they are not a Canadian product.

MR. BROOKMAN: Thanks Frank. Bart?

MR. DAY: Yeah I just wanted to make a general comment about anecdotal evidence because you know as we looked at this issue and tried to get some sense of what is realistic we have concluded that we -- that it's an incredible challenge because there is substantial evidence that when you look at fireplaces as a group that as many as half of all fireplaces are used not at all or rarely.

Again we are talking about a product that performs its primary function just by sitting there. And that's what fireplaces are. They are an architectural feature and the data on fireplaces in general is right around 50%. 5-0 are not used regularly at all. Either are used not at all or are used rarely and the problem you have with anecdotal evidence when we talk internally what any particular manufacturer sees is experience with people that are using the product, so they are only seeing half the data set to start with so whatever impression they

get is going to overstate the issues with respect to anything related to product use because they are not seeing the substantial population of products that aren't used.

Survey data is subject to the same problem. Characteristically when you do survey data the people who are actually using products are much more likely to respond than the people who don't and so everything is skewed in the direction of inflating anecdotal or survey data and so you know reliable data about issues like pilot light use is frankly just wanting and I think the other significant issue is that two of the major factors that control the outcome there are consumer attitudes which have been changing rapidly and continue to change.

And product design which has evolved rapidly and continues to change and so to -- if we had reliable data from you know a year ago it wouldn't be reliable data for two years from now let alone five years from now because we see the trends.

It's a very difficult issue to get at and the sentiment of the industry is that you know

concerns based on this model of you know the pilot lights that nobody changes is just -- it's not an applicable model to products that are coming on the market today or that will be on the market five years from now and so there's a real question as to whether there is any issue to address through regulation at all.

MR. BROOKMAN: Okay moving on.

MR. SIAP: Still in the operating hours now we move on to the intermittent pilot operating hours covered by these two equations here. The intermittent pilot hours are determined using the main burner operating hours and the IPI on time per main burner operating hours. This is determined by the main burner cycles per hour and the operation per main burner cycle.

The average main burner cycle time is determined -- is assumed to be similar to similar equipment, direct heating equipment where we assume an average main burner cycle time of 20 minutes which leads to three main burner cycles per hour. DOE assumes that an IPI operation per cycle of 30 seconds

and this results in an average IPI operating hours of 3.9 hours per year.

MR. BROOKMAN: Barton?

MR. DAY: Yes these assumptions come out of the test procedure for direct heating equipment. Several years ago we submitted a submission and a test procedure proceeding and we have submitted it to DOE several times since then. This has absolutely no relevance to hearth products. This is a strictly utilitarian heating appliance operating on a thermostat. This is absolutely has got nothing to do with any hearth product, they just don't operate like that.

MR. BROOKMAN: Dana?

MR. MOROZ: Dana from Wolf Steel. I would agree with Barton on that point the fact is that most homeowners use these as decorative appliances, they don't turn it on to cycle the heat, they turn it on because they want to enjoy the ambience, the cold temperature outside allows them to do so and they don't want to watch it come on and off for 20 minutes every hour, they want to have it on for several hours

while they are sitting there enjoying it and that's how fireplaces are used.

InterCan went through this recently in Canada trying to evaluate the same usage and was unable to define it. When they looked to themselves and surveyed within their own organization they found that was consistent with the proposed usage. That most users leave it on for an extended period of time to enjoy the ambience, not to heat.

MR. SIAP: Right so just briefly the we realize that the hearth product and burner cycle may be longer. Here we choose to kind of potentially overstate the energy use of the IPI to be conservative in our estimates.

MR. BROOKMAN: Frank?

MR. STANONIK: Frank Stanonik, AHRI. So the slide says that the average main burner cycle time is 20 minutes and I understand it to be the burner on time?

MR. SIAP: Yes.

MR. STANONIK: Well by the fact you are calling it a cycle that suggests that there is a

burner off time which there is if it is thermostatically controlled and if that is the case then you do not have -- the only way you get three main burner cycles in an hour is in fact if you have three consecutive burner cycles of 20 minutes which is basically one burner operating of one hour.

So you have got a little flaw here in how you have analyzed this because what you haven't mentioned is okay if it is operating this way what is the off cycle and if in fact and then one other point that has just been brought up here okay. In the discussion of how people use decorative equipment it is totally appropriate. They just want to watch the flame okay.

But if this is a vent-free product okay they can't let it run forever because the room will just get too hot. They will either open the window and then I guess heat the outdoors or they in fact will cycle the equipment or turn it down or whatever because again there is no way around it, a vent-free product will heat the room and it doesn't take very long for going from comfortable hot to too hot and so

it's a whole different situation of how that main burner is going to operate.

MR. BROOKMAN: Sue?

MS. WALKER: All I was just going to say on the vent-free products overwhelmingly they are thermostatically controlled and cycle automatically.

MR. BROOKMAN: Okay yes Rett?

MR. RASMUSSEN: Rett Rasmussen. The ANSI standards for vented decorative appliances they do not permit the use of thermostats so you will not have this type of cycling with decorative products.

MR. BROOKMAN: Sue is that correct? Yeah okay, Barton nothing there -- okay.

MR. SIAP: Next I have how we determine the main burner operating hours. Now that the previously stated cycles per hour is for main burner operating hours not hours in general so the main burner operating hours are determined using the overall hearth product energy use as listed in RECs 2009. The main burner input capacity as determined in the engineering analysis and several adjustment factors where we adjust the heating and cooling load

to project -- to account for 2021 of rejected building shell efficiency as well as 2021 average climate conditions. Yes?

MR. ROSENSTOCK: Steve Rosenstock, EEI. When you are saying building shell you are saying residential or commercial or a combination of both?

MR. SIAP: Residential.

MR. DAY: This is Barton Day again the whole issue of burner operating hours the appendix of testimony that we are talking about a minute ago has assumptions that are completely out of whack for hearth products again I completely -- looking at a different type of product. But these numbers you are starting with the RECs data again so you are starting with the small fraction of fireplaces that are used for secondary heating you know for most of the products we are talking about the pattern is going to be different.

For fireplaces in general the pattern is going to be different and so you know we don't -- this is not producing data that is going to be representative of any of the products that we are

talking about and that's really the problem is that the operational use data is way off and it doesn't connect with pilot light use data anyway. It seems like we are assuming some use pattern of pilot lights without any evidence on the basis of product use information for which we have no evidence.

MR. SIAP: The final term is the secondary effects or the impact of the pilot heat on the base heating or cooling. Secondary effects are determined in these equations listed here the first term is the energy use of the pilot, this is just the energy consumed by the pilot as the product of the power consumption and the operating hours.

Next is the fraction of useful heat from the pilot which is the distribution based on another field study and it's assumed to be more for unvented units and less for decorative units and finally DOE takes into account the efficiency of the main space heating or cooling appliance depending on season.

MR. BROOKMAN: Steve Rosenstock?

MR. ROSENSTOCK: Steve Rosenstock, Edison Electric Institute. When I looked in the technical

support document table 7.3.6 it talks about the fraction of the heat of useful heat. I'm seeing ranges depending on the product of 1 to 47% or 0 to 23% or for the unvented products 2 to 94% so you were talking about a distribution based on a field study. It's based on a Canadian field study and as Frank said the unvented products aren't even allowed right so in terms of the distributions how did you determine -- or I'll ask what is the shape of the distributions and how did you do it for unvented products?

MR. SIAP: So I will start with vented and then go to unvented. Vented products is a triangular distribution where the upper bound is established as the number determined in that study as that was one household that had the furnace thermostat coincident in the same room and basically right next to the fireplace.

So we assumed that that is one of the most impactful scenarios for a furnace and a hearth product interacting. For the unvented units we recognize that there is a potential for higher, much

higher impact on furnace use so we assumed double. If that number should be something else we welcome comment on that.

MR. ROSENSTOCK: Steve Rosenstock EEI. So you said the unvented was -- you also assumed a triangular distribution?

MR. SIAP: Also triangular yes.

MR. ROSENSTOCK: So where was the peak of the triangle just out of curiosity within that?

MR. SIAP: It's symmetric so --

MR. ROSENSTOCK: By 23 and so in the first case it would be -- Steve Rosenstock, EEI so it would be 23 in the case of 1 to 47 and for the zero to 23 it might be 11 --

MR. SIAP: Right.

MR. ROSENSTOCK: And then 2 to 94 it might be 48 or something like that, 48.

MR. SIAP: Right in that range.

MR. BROOKMAN: Go ahead Frank?

MR. STANONIK: Frank Stanonik with AHRI. In the case specific case of unvented vent-free products I would strongly urge you to essentially

scrap this analysis and just start by what I would call first principals and the first principal is that on a vent-free heater all of the pilot energy during the heating season is going into the space. That is installed in a room or wherever and it is intended to provide heat to that area so in fact all of the pilot energy because it can go nowhere else is going into the space so it is all useful heat.

Now if you want to get into an analysis and figure out what is going on with infiltration and some other things you can do that but to suggest that there is a range for a pilot on a vent-free heater is to borrow a phrase from Leslie, ridiculous. There's no place else for the heat to go but into the space. It is 100% putting BTU's into that space.

Now during the heating season you could you know, you could do some analysis that might look at bins and say okay how many hours are in the heating season, am I really wanting heat as opposed to not wanting -- all those things but to take this study that you have done in Canada and then make some assumptions and look at some distributions just

doesn't fit.

MR. BROOKMAN: Barton? Okay, yes James please.

MR. HOUCK: Yes I would like to expand on that a little bit. First of all I think it would be fair in your equation to have a plus or minus in the secondary effects because I believe you would probably have more benefits in the winter and losses in the summer. A couple of other things about that, one is I would be surprised and sometimes I am surprised that you have taken into account the magnitude of the heating benefit in the winter.

The standard in the industry used by the U.S. weather service is heating degree days and that's any day that has an average temperature below 65 degrees Fahrenheit that is deemed that heating is needed. So I would argue anywhere a fireplace is located and the number of days that are below 65 degrees the energy is not wasted, in fact it is used to heat the dwelling.

The other component on that, is again it was alluded to a little earlier, it is not a linear

fashion, in other words if there is a hundred million BTU's of energy put out, used by the pilot light the benefit to the home can be much greater than that. Fireplaces to have open chimneys for example a gas log set put in an old masonry fireplace -- if the draft is lost and becomes negative and which you have air infiltrating into the home that air can be very cold and causing your main heating source such as a forced air furnace to work a lot harder.

So I would argue that probably the secondary benefits of a pilot light are not adequately taken into consideration.

MR. BROOKMAN: Okay.

MR. SIAP: So finally we have the results of the energy use analysis. The top table lists the standing pilot fuel use by product type. The bottom table lists the energy use by the intermittent pilot. The first column is the energy use direct electricity use directly by the intermittent pilot.

The third column is the space heating fuel impact -- this is the increased energy use by the furnace or the fuel used in heating appliance due to

the lack of useful heat from the standing pilot. Similarly for those households which have an electric resistant heat pump space heating appliance the fourth column takes those electrical impacts into account.

And finally the last column takes into account, lists the benefits of the lack of the additional cooling load from the standing pilot which results in reduced air conditioning or other cooling operating hours, yes?

MR. BROOKMAN: Yes Steve Rosenstock?

MR. ROSENSTOCK: Steve Rosenstock, Edison Electric Institute. Again thank you for that, that kind of the breakout. I guess my thought is again just looking at table 731 it says that in your in a technical support document it says year round standing pilot is 20% of the population. So for these numbers in the table these numbers are just for, well I'll just start with the cooling, for the space cooling that's only for the 20% of homes that are actually running the pilot in the summer time. Am I correct in that assumption?

MR. SIAP: For that part yes.

MR. ROSENSTOCK: Okay the next question I was going to have is you know especially for a lot of these products where you know the pilot is going to be inside the fireplace and in many cases it is behind a glass door as well I know you said the fraction if like only 20% of the heat is actually getting into the space and it starts out like I'll say 700 to 1000 BTU's you are talking about you know a couple hundred BTU's where the cooling load of the house might be 36,000 BTU's per hour at a peak time on a peak July day. That's kind of within the noise, are you saying that the thermostat has to go on and off just because of that extra couple of hundred BTU's?

MR. SIAP: We acknowledge that it is a really small portion of the cooling load but we account for the analysis -- for the heat input into this space the same as the cooling and the heating season.

MR. KUPSH: Jim Kupsh. The 20% -- that 20% is it calculated off of 100% of the fireplaces or

is that 20% calculated off of 20% of the fireplaces that have a standing pilot system? In other words are you subtracting out all of the existing fireplaces that currently have an IPI system?

MR. SIAP: So these results are presented separately so this is for only the standing pilot or intermittent pilot so that 20% is only standing pilot.

MR. KUPSH: But the calculation was based on 1997 when the entire market was standing pilot, how 40% of the installations and it's growing as we get to 2020 are not standing pilot, is that taken into consideration?

MR. SIAP: So we used the 1997 report to provide some kind of data point for the behavior with standing pilot only. So we applied those modes to --

MR. KUPSH: I understand but my statement or question is if you use 1997 as the 20% then you have to use it only the appliances that are now standing pilot. If you use it as a -- if you take into account for all of them now you then have to take into account that 40% of the appliances no

longer have standing pilot.

MR. CYMBALSKY: What he is saying is the behavior is constant not the stock of standing pilots.

MR. KAPSH: How can you say the behavior is --

MR. CYMBALSKY: 40% of the lower number is standing pilot.

MR. KAPSH: You have no data to say the behavior is constant you are basing it on 1997 data in which there was no IPI applications.

MR. CYMBALSKY: And that's fine no, no, no. Let's just think about standing pilots. So in 2007 or '97 you had a population of people with standing pilots. 40% of them said we don't turn it off. Fast forward to now the number of people with standing pilots is a lot lower but of that lower number you still have 40% of them that keep the standing pilot on.

Behavior is the same of people with standing pilot unless --

MR. KAPSH: So are you saying the 20% is

only standing pilot applications?

MR. CYMBALSKY: Right.

MR. KAPSH: And you subtracted out form the whole population.

MR. CYMBALSKY: Yes.

MR. KAPSH: Okay thank you.

MR. BROOKMAN: Yes?

MR. RASMUSSEN: Rett Rasmussen. I would like to point out that since that is a Canadian study Canada is north of the United States of America. If you recall in my comments -- opening comments I had a dealer from Michigan which is just south of Canada but still in the northern part of the United States that suggested that standing pilot usage is going to be greater in the northern climates and what it would be in the southern part of the United States so I would like to just point out that this is what I consider to be a discrepancy in the use of these Canadian numbers for making policy for the United States.

MR. BROOKMAN: Barton?

MR. DAY: Yeah I just want to go back to

the point John when you were commenting a moment ago you said but the behavior is the same and there's no reason to believe that is the case and the reason for that is in the article itself and again if you guys have the study we would love to see the study, all we had access to was the article that you linked to in the notice.

And the notice states as one of its principal conclusions that the ease of pilot light control has a significant effect on consumer behavior and they picture a product as part of the art for the article and say well if you have easy controls like this product it has a significant effect on pilot use guess what, that product is now the norm.

MR. CYMBALSKY: And it's not a standing pilot light in your mind.

MR. DAY: No it is a standing pilot light. I'm saying of standing pilot light products now and this is why it would have been great if you guys could have come to the expo because if you had walked around the expo you would have seen you know you flip open a panel there's a dial, there's a button -- it's

as easy as a barbeque grill and this is the bulk of the product now. It's not -- it's not crawling around on your hands and knees with a screwdriver and a flashlight anymore so behavior is going to be completely different.

MR. CYMBALSKY: We are happy to take the data, the bulk of the product is different so tell us what the bulk is and we will implement it.

MR. DAY: There is no data, that's the problem.

MR. CYMBALSKY: Well there's a showroom full of it.

MR. DAY: You mean in terms of model.

MR. CYMBALSKY: I mean before you criticized and I don't mean in a negative way you know the product offerings and models available was a bad way of gathering data but you are also saying if we went to the HPBA show which we tried to the weather actually screwed it up.

MR. DAY: I didn't mean anything --

MR. CYMBALSKY: But if we walked around the floor and just took a survey of the product there

to use your point would that be okay to do, you know we collect data --

MR. DAY: It would at least have given you a flavor.

MR. CYMBALSKY: I mean we use product literature, everything that we can get our hands on.

MR. BROOKMAN: Leslie please?

MR. BORTZ: I have mentioned to you several times that we have piezos on some of our pilot systems and the only reason people would buy them and spend the extra money would be to turn the pilot on and off, you haven't considered that at all and we didn't have that in 1997 and we had started in 2007.

MR. BROOKMAN: Let's go to the comment boxes. Here you see two comment boxes I think perhaps we have covered both of these.

MS. ARMSTRONG: So we kind of have to move a little bit quicker, some of us because I know there are certain areas especially when we get to the shipments analysis that some people have already commented that they wanted to highlight so we are

1 going to go pretty quick through some of these, just
2 highlight major points. If there are certain things
3 you want please stop us but we are -- all of our
4 information is documented in the notice and in the
5 technical support documents.
6 We will always welcome your data. We are
7 happy to revise our analysis and/or our assumptions
8 that were explained in response to new data that
9 becomes available or any data that you are willing to
10 submit whether it be on the record or confidentially
11 through a contractor we have ways of doing that. And
12 since many of you have pointed out today that you
13 know you don't necessarily agree with some of the
14 data sources that have been used or some of the
15 assumptions however you can't just state disagreement
16 you actually have to explain why and perhaps you may
17 have data to back that up.
18 So if you don't might proceed but
19 highlight the high points, thanks.
20 MR. SIAP: Okay thanks. Okay so the next
21 section is a lifecycle cost and payback period
22 analysis. The purpose is to provide an economic

evaluation from the consumer's perspective. Lifecycle costs or LCC's are the total consumer cost over the life of the product. Payback period or PBP is the time required to recover the increased purchase price through reduced operating costs. The LCC's determined using the equations and the methodology -- the LCC and the PBP are determined on those equations. The LCC's the sum of the total installed cost and the lifetime operating cost.

The LCC savings is the difference of the LCC and the standard in the base case and the payback period is the portion of the change of the total installed cost and the first year operating cost.

The same consumer sample is developed in the building sample a few slides ago were used for this LCC analysis.

So the graphic to walk you through the lifecycle cost, the top bracket here kind of shows how the total cost installed cost is developed, it is the sum of the consumer price and the installation costs and the lifetime operating cost is developed on the lower half as the sum of the annual operating

expenses over the lifetime discounted to the appropriate rate and with the appropriate energy prices.

The consumer price is determined using the manufacturer cost and the markup. The manufacturing and markup were discussed manufacturing costs and the markup were discussed earlier and the results for the average price are listed in the table below for both standing pilot and intermittent pilot.

MR. BROOKMAN: Leslie?

MR. BORTZ: Leslie Bortz, can I assume from page --

MR. BROOKMAN: Is your microphone on? Leave it on Leslie.

MR. BORTZ: I can't I'm swearing. Can I assume from this bottom of that chart that the cost at some point -- that the consumer price that you have here is $82.08?

MR. SIAP: So the consumer price is broken up there for each ignition type so for a standing pilot the consumer price is $165.00 and for intermittent pilot it's $247.00.

MS. ARMSTRONG: So this is Ashley from DOE just to clarify when I first saw this slide I was a little and you still may not necessarily agree which we welcome your data and comments on but this is just the ignition system so we have isolated the ignition system. We are not saying this is the cost of your product so take that shock factor away.

But there still might be a shock factor associated with the ignitions of some but this is what that is meant to show. This is the ignition system only.

MR. BORTZ: Yes ma'am.

MS. ARMSTRONG: We welcome comment, like I said we welcome comments and feedback or it's you know and data and if anyone who wants to continue discussions through our manufacturer process or whatever we are welcome to that, we are open to that.

MR. BROOKMAN: Dana?

MR. MOROZ: I appreciate the invitation Ashley but again it is data that we don't necessarily have why look at oh what have I got right now about 60 different gas appliances and applying that product

to each and every one of them will require different diligences so I can't capture that cost. I can't give you a nice round figure and say this is what it is going to cost on an average, I'm sorry. I would like to be able to but it is not available.

MR. BROOKMAN: Okay thank you moving on.

MR. SIAP: Okay so next is the installation cost. The purpose is to represent the labor for material necessary to install the hearth product ignition system.

MR. BROOKMAN: Martin Thomas has a comment and his comment is some of the IPI pilots have a switch that converts them to a standing pilot. The product literature recommends leaving the pilot on in cold weather, okay.

MR. SIAP: So this installation cost is meant to represent the incremental and installation costs of the ignition system only. For some standing pilot users switching to IPI they may require an electrical connection that is considered for a house build prior to 1990 in addition for grounding for older houses prior to 1960. The labor costs and

mechanical cost data were sourced from 2013 RS Means. The results by task -- the average cost by task are listed there as well as the percent of households. Yes Barton?

MR. BROOKMAN: Yes Barton?

MR. DAY: I would like to go back to that point that just blew by so quickly and I apologize if it is out of order but it really is essentially an important point and that is that the proposed standard doesn't do what the NOPR suggests that it would do and one of either two ways and I think the fundamental problem is that in the technical analysis there was not an adequate appreciation of the function that a standing pilot light performs and in particular and this is a broader point, there was not adequate appreciation for the importance of being able to warm up the vent system to get proper draw on a product before main burners are ignited and it's -- the short answer is that's you can expect a lot of operational problems if you simply put an IPI on a product that's designed to operate with a standing pilot.

And it's a significant issue. The point that was made a moment ago is I believe almost every manufacturer in the industry that offers IPI offers IPI with the ability to put a standing pilot function on and the reason for that is to prevent these operational problems that are typically characterized as cold weather problems but there is a switch or a button setting on the remote control and so the idea that the IPI devices that are used by most of the manufacturers would eliminate all gas consumption except when the main burners are on is incorrect and so the gas savings you are assuming is overstated for that reason.

And on the flipside on the cost side the assumption well most of your manufacturers are using products that will satisfy the standards, that's not true either and so you know there's the basic issue of if you are going to allow a standing pilot function on an IPI unit then your gas savings are high and if you are not then your economic impacts are way, way, way low so it is a very important point and I apologize for taking it out of order but as we

1 got to this point I just realized we hadn't gotten to
2 that yet and it's a critical point.
3 MR. BROOKMAN: Okay.
4 MS. ARMSTRONG: So I have one follow up to
5 that. Do you have an estimated fraction that the
6 manufacturers recommend must leave the standing pilot
7 on?
8 MR. BROOKMAN: Anybody?
9 MS. ARMSTRONG: So his point is that our
10 savings are overstated because there is a fraction of
11 the market that even if you switch to an electronic
12 ignition would still require some type of pilot or
13 some type to remain on.
14 MR. KUPSH: As a control manufacturer I
15 will tell you that every customer we have every
16 fireplace manufacturer who makes a fireplace and uses
17 our IPI system includes a switch to be able to allow
18 the homeowner to deal with issues of cold climate and
19 so every IPI system has this capability, every
20 manufacturer is using it.
21 MS. ARMSTRONG: That's allowance versus
22 I'm wondering what fraction actually recommends, what

are the terms for which you recommend because that is what is going to impact our savings.

MR. BROOKMAN: Dana?

MR. MOROZ: Dana from Wolf Steel. I guess this really demonstrates how this is an evolving technology you know the assumption here that we are talking about today is hey we have got this great new system we could drop it in and save a bunch of gas which is great I love it but the reality is we are trying to make it fit into a system that has a lot of variables that influence it that make it effective or not effective, whereas we are an industry trying to manage and develop that, our suppliers are working with us but there has been no clear answer and this what we call an anti-condensation switch, this accessory really essentially bypass intermittent pilots has become necessary because of the failing of an intermittent system in some applications and so we don't prescribe it, we don't say use it all the time but we need to have it available so when our customers experience the failing of our product using an IPI system there had to be a solution.

Our market is very delicate, you know we talk about is it a heater is it not a heater, is it decorative? We have cultivated a market that appreciates the product we have, we can damage it severely if we force technology on to it that isn't effective yet and so this is a step for us, this ACS switch helps us get to that next level but that technology is not here today.

MR. BROOKMAN: Okay, we are going to move on.

MR. SIAP: So next we have energy prices I'll go over this briefly. The purpose is to develop the average marginal monthly prices by geographic area. DOE calculates these prices by multiplying the current average annual energy prices by the monthly price factors and the marginal price factors. The annual energy prices are listed -- the sources are listed there for the electricity, natural gas and oil as well as the monthly energy price factors and the marginal energy price factors.

MR. BROOKMAN: Steve Rosenstock?

MR. ROSENSTOCK: Steve Rosenstock, EEI.

I'm looking at this slide and I needed to double check what about the marginal prices for the propane products, what are those based on?

MR. SIAP: The monthly energy price factors for propane LPG is listed there EIA 2009 short term outlook.

MR. ROSENSTOCK: Steve Rosenstock EEI, you don't have any more recent data to use?

MR. SIAP: I believe that's the most recent data, 2012? 2009?

MR. CYMBALSKY: We will update it as the EIA puts it out but we use by rule we will use the most recent EIA data so it's not like we are ignoring a more recent year when it comes out we will use it.

MR. BROOKMAN: It takes a while for them to assemble it all.

UNIDENTIFIED: I've worked there for 20 years so I can tell you it's not an overnight thing.

MR. DAY: Did we accidentally skip slide 51 on installation costs or did I just miss it.

MR. BROOKMAN: We didn't skip it but we went quickly through it.

MR. DAY: Okay I was just wondering if anybody had to say about it.

MR. BROOKMAN: Do you wish to say something about installation costs?

MR. DAY: My understanding anecdotally is that the installation costs are and obviously it depends on the product but for fireplace inserts, for gas log sets yeah the installation costs are significant, a significant concern.

MR. BROOKMAN: Okay, yes Leslie?

MR. BORTZ: Leslie, we provide that to you in our -- we will provide it to you in our -- I'll give it to you today but I will provide it to you in the written comments.

MR. BROOKMAN: Thank you that's helpful. Thank you Dana?

MR. MOROZ: I don't have that information but I can say that in most states and certainly in Canada you require a qualified technician to put any electrical in which now brings a whole other factor another contractor into the installation. I also think in some applications such as inserts or even

logs, in some states there might be some conflict as to putting an electrical component in that cavity with the fireplace.

MR. BROOKMAN: Okay.

MR. SIAP: Thanks, the next slide is the energy price trends. These are the average monthly marginal -- these are how we determine the average monthly marginal energy prices by geographical area. These price trends come from EIA's AEO 2014 by Census division. After 2040 they are extrapolated according to fed guidelines.

The projected energy prices are shown in there for both electricity, natural gas and propane are listed there.

MR. BROOKMAN: Steve Rosenstock?

MR. ROSENSTOCK: Steve Rosenstock, EEI. Again just for clarification the value shown these are nominal prices not inflation adjusted these are the nominal projections?

MR. CYMBALSKY: No they are real prices.

MR. ROSENSTOCK: Okay thank you Steve Rosenstock, EEI. Again at least on the electricity

side if you look at the EIA data over the last 50 years the price for electricity has not increased, it has flat lined or gone down, again if you look at the basically 1960 through 2012 EIA when you look at some of those tables this history has shown at least for electricity that the real prices over time does not increase.

So again if it is showing it as real prices increasing again at least on the electricity side it is going to overstate the actual dollar impacts on the electricity side, thank you.

MR. BROOKMAN: Yes Leslie?

MR. BORTZ: Leslie from RHP. What's your start for residential LP or residential natural gas price? Where do you start from? What's a number, a real dollar number?

MR. SIAP: Well the number listed on the slide there at the beginning so for natural gas it's around $10.00.

MR. BORTZ: $10.00 for what?

MR. CYMBALSKY: Per million BTU, straight from EIA. This is not a standards program.

MR. BORTZ: It will be in a couple of months but it is not now.

MR. CYMBALSKY: We are not in the gas price forecasting business here in our shop.

MR. SIAP: Okay next is the repair and maintenance.

MR. BROOKMAN: Let's linger on the price trends just for a moment and see if there are any additional comments there? Okay let's go.

MR. SIAP: These are the labor and material required to ensure hearth products operation. DOE did not identify specific maintenance requirements for either hearth product ignition system and we assumed no maintenance cost. The repair costs were equal to the cost of replacing or repairing the failed component because the ignition system is a component of the hearth product. DOE assumed that the repair and the replaced cost are the same so the frequency for this was determined based on warranty information and product lifetime and the cost was equal to the component cost of the module.

The results are shown there.

MR. BROOKMAN: Barton?

MR. DAY: This is Barton Day a quick question. Did you assume a different repair frequency for electronic ignition versus standing pilot?

MR. SIAP: In our research we saw similar warranty information and so we have the same ignition repair year so we have the same failure rate, we welcome comment data on that.

MR. DAY: Did you not receive comment indicating that there's a significantly different rate of repair?

MR. SIAP: Not yet.

MR. BROOKMAN: The comment period is open so go for it. Rett?

MR. RASMUSSEN: Rett Rasmussen. I'd like to point out that warranties are more of a marketing tool than an indication of failure of the product.

MR. BROOKMAN: Okay Leslie?

MR. BORTZ: Our experience with intermittent pilot repair cost is that it didn't take a month. It wasn't 9.6 years and our experience with

safety pilot kits they just about never fail.

MR. BROOKMAN: Yeah interesting, we have a comment from Martin Thomas who is joining us online and Martin's comment is when there is a switch on an IPI system it is no longer an IPI and the energy losses will be higher. End users may forget that their fireplace has the permitted pilot set. Okay.

MR. KUPSH: Jim Kupsh just a quick question, your intermittent pilot repair costs includes both components, both the valve and the ignition control?

MR. SIAP: This is for the entire intermittent pilot that was costed out in the engineering analysis.

MR. KUPSH: Because you basically have a valve that is similar in cost in both plus the ignition module and --

MR. BORTZ: These costs are just --

MR. SIAP: Thanks. Next is the lifetime which is the age when the hearth product is retired from service. This information was again based on warranty information, manufacturer literature,

published studies from lifetime distributions for residential appliances and similar products for the average lifetime. The result is a median lifetime of 15 years.

Moving on -- discount rates are used to determine the present value of lifetime operating expenses when a product is retired from service. DOE used data based on interest to return rates for various types of debt and equity to calculate a real effective discount rate for each household. DOE sampled a discount rate that accounts for distribution of 6 income groups.

DOE used as its data source the survey of consumer finances from 1995 to 2010 which resulted in an average discount rate of 4.2%. The overall distribution of discount rates as shown there on the bottom by income group and discount rate.

MR. BROOKMAN: Steve Rosenstock?

MR. ROSENSTOCK: Steve Rosenstock, Edison Electric Institute. Again that discount rate it's nominal or real?

MR. SIAP: That one is real.

MR. ROSENSTOCK: Okay.

MR. SIAP: Not inflation.

MR. ROSENSTOCK: I appreciate that so and again just looking at this chart I know from the technical support document. Because you have such widely scattered data do you know what the median value was?

MR. SIAP: I only have the average at this point I don't have it off the top of my head the median.

MR. ROSENSTOCK: Thank you.

MR. SIAP: Okay finally we have the base case efficiency distribution which reflects the projected market share of the products at the different efficiency levels, standing pilot or intermittent pilot in the base case in 2021. This reflects that not all consumers purchase products at the minimum standards standing pilot and consumers already purchasing intermittent pilot are not impacted by this standard so this used primarily historical model data as well as the data from the engineering analysis.

So the second column there gives the market share for each hearth product type and for each hearth product type the third and fourth column gives the fraction of standing pilot and intermittent pilot.

MR. BORTZ: What is this?

MR. BROOKMAN: Leslie go ahead.

MR. CYMBALSKY: So what this chart explains is that when the standard comes into effect in 2021 we project the market to be already at 42% IPI so the standard effects 58% of the market starting in 2021 of the units being sold.

MR. BORTZ: Do you take into consideration that 90% of the outdoor and 50% of the vented are match lit?

MR. SIAP: Match lit yes we take both of these adjusted numbers here as well as shipping studies you will see later have match lit just aggregated from them so we don't take into account match lit.

MR. BORTZ: Okay because these are the exact same numbers that you have now they are just

doubled, you know.

MR. DAY: Just quickly the point that I have made previously is that I question whether these numbers are representative now but the main point is that there is a very significant trend line that you are ignoring and I think that certainly for a number of those categories those assumptions just based on the trends on the market are reasonable and you will see far fewer --

MS. ARMSTRONG: And that's great and we welcome the data you manufacturers have their shipment data and their shipment weighted sales by the different ignition types, we would welcome that type of data and obviously we would use that if we were to do any reanalysis in the absence of providing the data to back-up your claims it's hard to tell one way or the other.

MR. DAY: The issue is fairly obvious in some respects as I have indicated. There are major manufacturers who have completely eliminated their use of standing pilot lights already. You know the question is and one of the questions we will come

back to this at the end but we are going to need additional time to comment if you want us to pull together data. I mean we have been working on it but the data is not there and it needs to be assembled.

MR. BROOKMAN: Leslie?

MR. BORTZ: You have seemed to indicate that there is a trend toward IPIs which you are trying to notice in this the trend is there but then you say in all your documentation you saw no trends of anything at all, none. Should I get --

MR. CYMBALSKY: So provide us with supporting data we will include it in the analysis.

MR. BROOKMAN: Next slide.

MR. SIAP: Yeah here we have just talked about all of these already so I am going to go to yeah, so okay, here they are. The results are presented here you can see this aggregated the installed cost, future operating costs, and the LCC as well as the payback period for an IPI system and here's the bottom table there shows the results of TSL1 which means the entire standing pilot market is switched over to intermittent pilot.

This takes into account all of the consumers which currently have intermittent pilot and it also takes into account those consumers which would have a net cost.

MR. BROOKMAN: Comments on the table, two tables yes Barton?

MR. DAY: Barton. Sorry just to clarify what did you assume as the lifetime number?

MR. SIAP: So the lifetime was that distribution shown on slide 53 which had a median value of roughly 15 years, 55 sorry.

MR. DAY: For all products?

MR. SIAP: Yes.

MR. CYMBALSKY: John from DOE you can see that the distribution takes us out to 30 years.

MR. DAY: For all products, thank you.

MR. BROOKMAN: Let's take a break, we have been going almost 2 hours, 10 minutes only so go grab a break to wherever you need to go and get back here okay, which means we will resume at 3:35 by that clock up there.

MR. BROOKMAN: Okay we are going to resume

where we left off.

MR. SIAP: Okay so now we are starting with the shipments.

MR. BROOKMAN: Shipments here we go.

MR. SIAP: Shipment analysis. So the purpose of the shipments is to forecast the hearth products that would be expected to be shipped between 2021 and 2050 both with and without energy conservation standard. DOE formulates both the shipment projections and price elasticity. The shipment projections estimate the number of hearth products shipped.

DOE has found that historical hearth product shipments are highly correlated with housing starts. DOE uses housing starts as opposed to housing completions because that is the number that AEO provides. DOE does not have housing completions projections.

MR. BROOKMAN: Barton?

MR. DAY: Just the point that the only product that actually is tied to new housing starts is fireplaces. You know some of the products like

inserts and log sets, they have to have an existing house to go into and so the you know, the correlation to new home starts for most of these products is pretty random.

MR. BROOKMAN: Okay, yes James?

MR. HOUCK: Yes I would like to talk about that a little bit. When I read in the federal register the proposed rule that says because DOE observed a strong correlation between housing starts and product shipments you use a 10 year average of the ratio of hearth product shipments to housing starts, along with the forecasted housing starts from AEO 2014 to project future hearth product shipments, I was astounded. That can't be, something is wrong here and I don't know what it is but for a couple of reasons.

One is as Barton just pointed out I looked at shipment records from 2009 to 2013 of hearth products and almost half, 48.5% were either inserts or gas log sets, they have nothing to do with new housing starts.

Another 9% fireplaces and gas stoves,

freestanding fireplaces and gas stoves, typical fireplaces, one normally assumes you know things of as a fireplace. Now I am going to remodeling so there is 57.5% of the products that have nothing to do with new housing starts, that's the first thing.

The second thing even ignoring -- even ignoring that fraction that doesn't seem to be correlatable to new housing starts or at least only in the very general sense, perhaps as the economy gets better -- I'll just read this paragraph even ignoring retrofitting and remodeling there is a very large uncertainty and inherent in using housing starts to predict new gas heart products, number one. I beg your pardon?

MR. BROOKMAN: What is the paragraph from?

MR. HOUCK: From me.

MR. BROOKMAN: Okay this is from you?

MR. HOUCK: Yes.

MR. BROOKMAN: Okay.

MR. HOUCK: Number one the fraction of fireplaces shipped that are wood fueled, gas fueled or electric which is a reflection of consumer

preferences influenced in turn by many economic and social issues historically has changed and most certainly will change in the future. It has changed significantly over the years and one would need a crystal ball to figure out how that would change in the future.

Number two -- the fraction of new homes that have a new fireplace has historically changed and again almost certainly will change in the future. It's over the last decade, a couple of decades, it has gone up and down 10 to 20% I believe it is a slow trend down right now. Again one would have difficulty predicting that in the future.

Number three -- the volatility seen since 2005 in new housing starts is yet a prediction of future housing starts is fundamentally uncertain. I don't probably need to dwell on what happened in 2005 and 2006 time period.

Number four -- the number of fireplaces installed in multi-family units. Completed in 2013 represents only about 1% of the total installed in new housing in that year. A future shift in

proportion to single family as opposed to the multi-housing starts will add complexity to a prediction based on new housing starts.

MR. BROOKMAN: Okay.

MR. SIAP: In addition to shipment projections DOE uses price elasticity to account for the impacts of increased prices due to a standard on shipments. So we will go to housing -- hearth product shipments prediction method as I stated previously DOE has seen a high correlation in housing starts and shipment projections, correlation coefficient of 0.98. Core 1 is a perfect correlation.

DOE then takes AEO's 2014 housing start projections through 2050 and applies the historical ratio seen in the historical data to the shipment projections that allows us to make the hearth product shipment projections and finally the DOE uses price list to account for decreased shipments due to the increase in price in the standard year.

MR. BROOKMAN: Barton?

MR. DAY: Yeah, Barton Day I was

surprised to see that your assumption in terms of price elasticity is that hearth products are like water heaters and other standard home appliances that are present in virtually every home. None of the products we are talking about are present in even half of homes and products like gas log sets and inserts the consumer is sitting there with a fireplace already, you know.

It is a highly discretionary purchasing decision and to think that price elasticity I think that that hit on these products from increased costs is going to be a little blip like it would be for products pretty much everyone has to have is completely unrealistic and it reflects a misunderstanding of the market.

The presumption at the beginning as well as all of these products are part of one market, no they are not. There's a fireplace market in which gas competes with wood and electric and it is right on down the line for every one of these products. So the cost impact in terms of what that will do to sales I think is seriously out of whack.

MR. BROOKMAN: Steve Rosenstock?

MR. ROSENSTOCK: Steve Rosenstock, EEI. And again if you go back to slide 65 where it shows the AEO projection, thank you. As I recall doesn't AEO project a higher percentage of multi-family going to -- it's going back to 1.4 million, you know a huge increase but isn't the part most of that bump in the increase is really for multi-family building rather than single family building?

Because I think that the trend over the last few years has been a rise but the rise has been because of multi-family rather than single family.

MR. CYMBALSKY: This is John from DOE. My understanding is the correlation coefficient still holds over the historical time period.

MR. ROSENSTOCK: Steve Rosenstock, EEI. Well but the thing is though if it is going to be more multi-family following up with what Mr. Houck said there is a lower likelihood of products going in, that's just the new ones, that is just the fireplaces again.

MR. CYMBALSKY: If they had created the

correlation coefficient on just single family but then applied multi-family starts to it then I would see your point and I don't believe they did that here.

MR. ROSENSTOCK: Steve, I was wondering about what they did the correlation to?

MR. SIAP: The statistical analysis is pretty clean there but we will take comment if you think there is a better way to correlate it.

MR. DIRCKS: This is Peter from HHT. I would concur with both of the gentlemen's comments. I mean look at the U.S. Census Bureau data that is where you are looking for some input. They have been tracking incident rates of fireplaces for about the past four years. It's about 50% the last 40 years just on fireplaces, so I think just to kind of to combine all the comments here just to straight line that across all the products I think is an issue I think that Barton raised but in terms of your -- Steve's comments on single-family versus multi-family that is typically broken on the Census Bureau and it would still be lower than what you are showing here

at 50% or less so thank you.

MR. BROOKMAN: Thank you. Yes?

MR. RASMUSSEN: Rett Rasmussen, nice to see the business cycle has been eliminated and also you know the NOPR talks about a disproportionate impact on gas log manufacturers due to increased price of the product, that there is price elasticity or at least there's consumer demand elasticity based on the higher price that gas log sets would be if they had to go to all electronic ignition systems so I can't see how you can have straight line growth or straight line projected shipments at infinitum.

MS. ARMSTRONG: Go to the next slide.

MR. BROOKMAN: There's the bump down.

MR. SIAP: Okay, the next section -- (CABLE ON COMPUTER WITH THE POWER POINT'S DISCONNECTED).

MR. RASMUSSEN: Rett Rasmussen just for the record my last comment was sarcastic with regard to the business cycle.

MR. BROOKMAN: Thanks for clarifying.

MR. RASMUSSEN: I just want to clarify for

the record.

MR. BROOKMAN: Leslie?

MR. BORTZ: You say that you haven't seen any difference in trend in multi-family compared to single-family I've got numbers here that show a trend. I will send them.

MR. BROOKMAN: Please submit those yeah.

MR. BORTZ: Here from the Census Bureau.

MR. BROOKMAN: Yes submit them thank you.

MR. BORTZ: They are the numbers that you have.

MR. CYMBALSKY: All I said is the analysis was done and the correlation coefficient applies. If there is a better method you think we could use feel free to suggest it.

MR. BROOKMAN: Barton?

MR. DAY: I'm sorry it's not a correlation, there's no causal connection okay it's like predicting the stock market based on skirt length, okay.

MR. BORTZ: It works.

MR. DAY: It's exactly what it is if you

crunch the numbers and get the lines to go together it doesn't mean that there is a correlation.

MR. BROOKMAN: We need to move on.

MR. DAY: For fireplaces yes, okay but you have to look at each product.

MR. BROOKMAN: We have to keep going here.

MR. SIAP: So the purpose of the national impact analysis or NIA is to estimate the impacts of an energy conservation standard over the lifetime of the hearth product shipped between 2021 and 2050 essentially this takes the LCC and the shipments analysis and provides a national impact analysis.

The national energy savings or the NES is the difference in the lifetime energy consumption of hearth products for the base case compared to the standards case and the net present value is the difference in the present value of installed cost and the present value of the operating costs over the analysis period. In the interest of time I will skip to the graphics showing these as opposed to the text.

From the shipments here we calculate the energy use in both the base case and the standards

case, applying a full fuel of cycles and taking the difference gives the national energy savings.

The net present value is formulated similarly, we calculate the operating costs savings in the base case and the standards case, take the difference and that is the cumulative operating cost savings, the difference in the product costs of the base case and standards case gives the cumulative total consumer cost increase.

The difference of that discounted to the present value gives the net present value.

Okay so the summary of the NIA impact inputs. We went over all of these before except for the full fuel cycle of energy factors which essentially accounts -- this converts the site of electricity to primary power plant energy consumption, accounting for resource extraction, distribution losses, et cetera.

Here are the actual input values for the NIA. Again we went over most of these discount factors 3 and 7% and the base case is 58% standing pilot, 42% intermittent pilot and the standards case

distribution will be all intermittent pilot. Just to go over briefly the base case and the standard level how that interacts.

The products that are below the standard in this case, standing pilot will roll up to comply with the standard means that they will switch to intermittent pilot. Products and or above the standard will not be affected.

Okay so this is the results of the NIA primary national energy savings of .62 quads. .69 quads is the full fuel cycle energy savings. The net present value, discounted at 3% is 3.12 billion dollars in 2013 dollars and the net present value of consumer benefit discount at net 7% is 1.03 billion dollars.

MR. ROSENSTOCK: Steve Rosenstock real quick sorry. That's until 2040 or 2050 what's the time?

MR. SIAP: Well so that's in the lifetime of products shipped during that year so that's from 2021 until the end of life of the last product shipped in 2050.

MR. BROOKMAN: Yes Barton?

MR. DAY: So it's the 30 years of shipments and then in the 30th year you are going to make up a number, a million of these things and then that 30 year distribution for all of them to die out so roughly you add 30 years to the end, so the last bit of savings after you discount is probably a very small number when you discount over 60 years.

MR. SIAP: Yeah it's very small.

MR. DAY: This is Barton, I think I feel compelled to point out that you are assuming products absent to rule. The technology for pilot lights and pilot light operation would be exactly the same in 2040 as it is today, correct? I mean that's how you are crunching your numbers?

MR. SIAP: Yes our distributions are constant with time in the absence of data.

MR. DAY: Well I would just point out that if technology were that static I would be preparing comments on a typewriter and sending them in by snail mail.

MR. BROOKMAN: Okay thank you, additional

comments here?

MS. ARMSTRONG: So I guess would you like us to -- perhaps the manufacturers can give us information on historical model availability, how their model offerings have changed over time because seeing as you have said over and over at this forum that shipment data is sparse at least for your industry and not actually collected.

Certainly they know how their model offerings have changed over time and maybe that's a good proxy of the shift of how potentially models have evolved with technology changes over time. We would welcome that type of data and we would welcome using it in our analysis for the industry.

MR. BORTZ: We gave it to you, you don't even have it, we handed it to you.

MR. BROOKMAN: Okay we are moving on.

MR. SIAP: Okay the last slide in this section is the regulatory impact analysis or RIA slide 76. The purpose is to investigate national impacts of non-regulatory alternatives to the mandatory amended energy conservation standard. DOE

used a modified NIA spreadsheet to calculate -- to evaluate several non-regulatory alternatives to the proposed standard listed here including no action, consumer rebates, consumer tax rebates, manufacturer tax credits, voluntary energy efficiency targets and government purchases.

DOE calculated the resulting NES and NPV for each non-regulatory alternative and no alternative was found to be as beneficial as the proposed standard.

MR. DAY: This is Barton. Since the whole issue here is consumer behavior you know I would suggest that you consider you know public education and information. Consumers have a direct financial interest, they don't have to buy more expensive products, they don't have to have inconvenience or a lack of performance in their products.

Pilot lights can be turned on and off. Today many products can have their pilots turned on and off literally with the flip of a switch. The failure to consider the non-regulatory options for dealing with this I think really needs to be

rethought.

MR. BROOKMAN: Thank you.

MR. RASMUSSESN: Rett Rasmussen, also with these other regulatory alternatives or non-regulatory alternatives, perhaps there is some of these that would not have the impact on production workers in the gas hearth industry as shown on page 7115 of the NOPR that could lead to up to 58% decrease in the number of production workers and the impacts that that has on employment of the economy and the impact on people's lives.

MR. BROOKMAN: Thank you, moving on to manufacture impact analysis.

MS. LEWIS: Hi my name is Jessica Lewis from Navigant Consulting and I will be discussing the manufacturer impact analysis or MIA that was conducted in this part of the NOPR. The main purpose of the MIA is to assess the impacts of a proposed standard on manufacturers. A second purpose is to identify sub-groups of manufacturers that may be differently impacted by a standard and to evaluate potential impacts on those manufacturers. In the

slides that follow I will discuss impacts on two sub-groups, small businesses and manufacturers of gas log sets.

And finally the MIA looks at the effects of a standard on factors like domestic direct employment, manufacturing capacity and the cumulative regulatory burden facing the industry. The primary tool DOE uses to conduct the manufacturer impact analysis is a discounted cash flow model known as the government regulatory impact model, also fondly referred to as the GRIM.

The major output of the model is the industry net present value or INPV which is a metric used to quantify financial impacts on the industry. As part of the MIA we also conducted interviews with manufacturers which helped us to refine inputs to the cash flow model and to better understand the qualitative effects of the proposed standard.

In general the MIA process takes place in three phases. In the first phase we develop an industry profile using publicly available information such as SEC filings and manufacturers' annual

reports. In the second phase we developed an interview guide to gather targeted information from manufacturers and we also prepare the cash flow spreadsheets used to estimate financial impacts on the industry.

In the final phase we conduct interviews with manufacturers and use feedback to further develop and refine the analysis, finalize inputs to the cash flow model and examine the potential qualitative impacts of a standard.

To build the cash flow model for the industry we relied on content from several of the analyses that have been discussed earlier today. These inputs include financial and product information from the market and technology assessment, manufacturer production costs from the engineering analysis and annual shipment projections from the shipments analysis.

In addition to that we developed two key pieces of information as part of the MIA. The first is a set of multiple manufacturer markup scenarios which allows us to model a range of potential

financial impacts on the industry and the second is a set of conversion costs that enable us to account for various one-time costs manufacturers might incur in order to comply with the requirements of the standard.

On the qualitative side one of the primary outputs of the MIA is a set of key issues manufacturers raised during the course of interviews. We have touched on most of this today but to walk through quickly. First manufacturers raised concerns regarding impacts on profitability. They indicated that units with electronic ignitions systems tend to be more expensive to manufacture than units with standing pilot lights and expressed concern that a rise in prices can lead to a drop in sales.

Second manufacturers indicated that the proposed standard could potentially impact the competitive dynamics of the market. On this front small manufacturers specifically expressed concern about their ability to compete with larger manufacturers who may see advantages when sourcing components for electronic ignition systems at higher

volumes and we will discuss that more later.

And finally several manufacturers indicated that electronic ignition systems represent a more complicated technology and may be less reliable. On that point several manufacturers indicated that units with electronic ignition systems tend to require more servicing and repair than some of the units with standing pilot lights. Others mentioned factors like we have heard today about how units with standing pilot lights may in some cases be better suited to colder climates and also are able to operate during power outages.

Moving on to the next few slides, we will walk through the quantitative analysis in more detail. First as I mentioned one of the key inputs to the cash flow model is a set of markup scenarios. The markup is a multiplier applied to the manufacturing production costs to capture all non-production costs so this includes things like R&D, selling general and administrative expenses, interest expenses and also profit.

By varying the markup in our model we are

able analyze a range of potential impact on the industry. In the NOPR we modeled two markup scenarios, the preservation of gross margin percentage markup scenario and the preservation of pre-unit operating profit markup scenario.

And the preservation of gross margin percentage scenario represents an upper bound, or less severe set of impacts. It assumes that manufacturers maintain the same markup after standards take effect as they had beforehand which implies that as production costs increase manufacturers are able to raise their prices and increase their operating profit in absolute dollars on a per unit basis.

In contrast the preservation of operating profits scenario assumes manufacturers cannot maintain the same markup after standards take effect. Instead they maintain the same operating profit but must reduce their markup in order to do so and by lowering the markup after standards take effect this scenario estimates a more severe set of impacts on manufacturer profitability.

In addition to markups the other key input we developed as part of the MIA is a set of conversion cost estimates to account for any one-time costs manufacturers face in order to comply with the standard. We typically break these costs down into two primary categories, product conversion costs and capital conversion costs and in bottom three rows of this table you can see that we have estimated total industry conversion costs under the proposed standard to be 8.7 million dollars and this consists of $900,000.00 in capital conversion costs and 7.8 million dollars in product conversion costs.

Earlier someone raised a question about how we accounted for testing and certification of redesigned models and things of that nature and for many products the requirements -- the conversion cost requirements of the standard may be heavily focused on new tooling and equipment to fulfill the new requirements for compliant products.

In this case as we have all discussed today the proposed standard largely entails a component swap. So the capital conversion costs,

which are one time investments in equipment, tooling and other physical assets are relatively low. We assigned a nominal conversion cost of $10,000 per manufacturer for any adjustments to their production lines or facilities that they might undertake.

And then for the product conversion costs which are one-time investments in things like R&D testing, certification and related costs we reviewed product literature and came up with an estimate of total models available in the industry as well as the percentage of those models currently offered only with standing pilot lights. So many models out there may have an option of electronic ignition or a standing pilot light and we focused specifically on those models only offered with standing pilot lights under the assumption that models offered with an option would not require any further investment in R&D or testing and certification, the standing pilot option would simply no longer be available.

So we identified 781 models that we thought would require potential conversion and assigned a $10,000 per model fee to account for

additional R&D and testing and certification costs. We developed those numbers based on manufacture feedback but certainly we would be very open to further feedback and comment if folks feel that you know there's additional data to share there.

MR. BROOKMAN: Yes Dana?

MR. MOROZ: Dana Moroz from Wolf Steel. I would like to sideline a moment if I could. I have a plane to catch so unfortunately I'm not going to be able to stay for the rest of this. I wanted to first of all thank the DOE for allowing me to participate today and be part of this. It has been very informative. And I certainly appreciate going through the whole process being a foreign national.

You know I think we have all voiced in different ways, I think we all agree with the concept of what is trying to be achieved here and to quote Barton we are not trying to be difficult. There's a lot of data we don't have, our customers don't know what they have and what they don't so it's hard to ask them questions sometimes too.

I guess my biggest concern is that we move

forward cautiously. You know this is one of the few domestic industries that is still here. You know we still manufacture in the United States and in Canada but we manufacture here and as much as there is great value in conserving our resources I think it is important to consider the jobs and the impact on the actions that we have.

` You know the reliability of the technology I don't think is what everyone expects it to be. Certainly as a manufacturer I can attest to that, that doesn't mean we have given up on it, we have worked diligently because we see the value and we have raised our market share with IPI systems as a result. We hear about new technologies that are being developed to answer those needs.

So again thank you and please consider that.

MR. BROOKMAN: Okay thank you.

MS. WALKER: Excuse me I'm also going to have to leave with Dana. I also express appreciation for being able to participate and look forward to the forward steps.

MR. BROOKMAN: Don't forget your detailed written comments.

MS. WALKER: Thank you.

MR. BROOKMAN: Gotcha.

MS. ARMSTRONG: Sorry I am going to ask one question. For those that have to go please feel free to go and perhaps you can follow up later but over the course of the day we have heard a variety of things that you know this industry is evolving, its moving to a more energy efficiency options. DOE over the analysis period you need to take into account the trends that this industry is voluntarily, there is a good percentage of the market that already is offering EI systems safely and reliably -- so I guess as a broader, bigger picture question you know -- what prevents the rest of that industry or that particular -- are there particular products or categories of products where there are technology issues or I mean in other words.

You say it is evolving anyway, you say it is going to get there in time. You say DOE should acknowledge that over time in its analysis period but

yet we are also hearing that DOE, you can't set a standard that adopts it because the technology is not there but yet there are products out there, there's a good percentage of the market doing it so are there certain categories where it is limited?

Is there certain categories where it is right for moving to and there are no technology issue I'm just asking you, you know what are those lines?

MR. BROOKMAN: Go ahead Rett.

MR. RASMUSSEN: Rett Rasmussen. While I spoke in my opening comments about the limitations of electronic ignition systems with gas log sets and I don't see that in five years' time that the issue of having acceptable electronic ignition systems like are used on smaller sets to be able to use on larger sets is going to come on to the marketplace.

It's an economic issue that the gas valve manufacturers will not overcome because the volume isn't there to make it economically feasible and rewarding to them to do so so if you were to push this through for larger gas log sets I'm out of business essentially in that and I am not willing to

give up on that easy. I view that I am in the happiness business, I tell my staff that -- that's what we do, we are in the happiness business so we try to make the best products we can for the market, what they want, deliver it consistently and this is not a happy process so gas logs are definitely there are bright lines there that we just cannot accomplish with what you want to accomplish here.

The other side of it too is there isn't a whole lot of fireplaces that are in that large area, but by the same token the folks that put them in they want what they want. They want to be able to enjoy the gas log set like the guy in the lesser house you know in the other neighborhood can do in his house.

But you know, so we try to accommodate that because we are in the happiness business and that is how we stay in business is providing products that will with the best available technology for what there is, there are just fewer options as we get bigger.

MR. BROOKMAN: Leslie do you want in here?

MS. ARMSTRONG: So I think that's really

helpful so thank you for that.

MR. BROOKMAN: No, okay Peter.

MR. DIRCKS: I also have to leave so I will make a couple of quick closing comments so -- first of all thank you, this was a step in the right direction to get the dialogue going on the issues so I think this was very productive today and good back and forth.

So basically I just want to kind of reiterate my opening comments. You know from our view one of the big things that we came here today is really seeking further clarification on the scope of the proposed rule, delineating the definition of a hearth product to a reasonable range. I think you gave us some insights much more so than we have had before.

You have asked for further opportunity by us and the industry to respond and we will do that and I think so of the comments that we have already provided, both written and verbal today has accomplished that and we can do more on that ground. I know a number of us have already given you some

feedback into some of the specific products that we would recommend that you eliminate entirely and the reasons for that so that's fairly logical.

I think in closing you know as I mentioned before as a manufacturer that has moved to IPI in the fast majority of our fireplaces we have done that, my comment earlier this morning was we just simply object to the proposed standard calling for the prescription design requirement that would completely disallow the use of standing pilots for a lot of the reasons we have already talked about today.

Because we do feel that affects lessening competition especially by reducing consumer choice for those use and installation conditions like we have talked about like "climate" situations that are real. And then secondly because we are very proud at HHT of our history of innovation both in safety and performance and we say that with pride and humbleness.

And so because of that we really would recommend that you be very careful considering eliminating future designs and applications where the

use of the pilot in a standby mode would still be essential to those designs or applications but we could still design to achieve substantially all of the purported energy savings that you are looking to do because there are companies, large and small, that can still get to that without formal regulation.

So with all that in mind thank you and I will just reiterate really kind of the final comment today because this was a step in the right direction that's really why we are you know, asking you to look at the NOPR and treating it as a request for information. You guys have been very helpful in saying that we can provide more information that might aid you in your efforts and I think that's why at the outset this morning I request that the April 10th deadline be extended so that we could possibly do that.

Help you in how you want to shape this for the betterment of all, so thanks very much.

MR. BROOKMAN: Frank Stanonik. I don't think we are quite ready to close yet but Frank keep going.

MR. STANONIK: I was assuming everyone had to leave and giving their closing remarks. Just something that I wanted to point out on this question of the industry net present value.

MR. BROOKMAN: Thank you for bringing us back.

MR. STANONIK: And although the analysis here seems relatively mild I can't help but notice, and I would hope the DOE notices that in this particular case in the shipment information you have been given, this industry in the last 8 years is still in an extremely rough ride. I just looked at the numbers and it almost bottomed out where the shipments were about almost one fifth of what they were at the peak in '05 or whatever year you started with.

And so my point of that is I started with this because I was trying to see what you are projecting for future shipments but my point is that in this particular case I think it is worth noting that again the shipments for this product have in the last 8 years have decreased significantly and so for

the people, especially most of them being small businesses to even suggest any kind of change where there is a negative impact on a net present value is a lot worse than let's say where they have been having average shipments for the last 7 or 8 years or maybe even a couple of high years, they are in a very different situation that I think warranted special consideration.

MR. BROOKMAN: Thank you, Leslie?

MR. BORTZ: I would just like to make sure that we get to the environmental --

MR. BROOKMAN: Right I was going to suggest that we press on here, okay just to get through the rest of these slides.

MS. LEWIS: Okay so just quickly as the results demonstrate we estimated a range of impacts on INPV between negative 2.6 and 0.4 percent for the industry.

MR. SKOLNICK: You can sit at the table.

MR. RIVEST: This is Mike Rivest, Navigant Consulting. I'm always a little concerned when I see that the magnitude of the impacts is not consistent

with the magnitude of the reaction of the manufacturers. So there are three drivers to the manufacturing impacts. There's the magnitude of the investments that are needed to comply to the regulations so that's the capital costs, the figure of 8.7 million dollars that Jessica mentioned.

It would be really important that we get that number right so the figures that were mentioned earlier about the $10,000.00 of product R&D and certification, you know, that is something that we would definitely like to have comment on. The other big driver is shipments. I saw some reactions earlier to price elasticity and you know to the extent that we can have comments on your expected change in shipments due to the price changes that we are anticipating and the rationale for those changes, that would be very useful because that's a key driver to the manufacturing impacts on the log sets in particular if the prices are going to go up, your comments?

All right but --

MR. BORTZ: But you got it.

MR. RIVEST: Navigant got it from you.

MR. BORTZ: Yeah.

MR. RIVEST: But I think what we need is to have something to the docket from a broader spectrum of the industry and then have Lawrence Berkeley National Lab you know prepare their shipments analysis okay. Really the other -- well you guys have been repeating stuff all day I can repeat a little bit too.

MR. BORTZ: Just as long as get to Jim's comments because he has got some important stuff to say.

MR. RIVEST: All right I have nothing more to say, thank you.

MR. BROOKMAN: Okay we are going to return to Jessica who will press on and take comments as we go along and we will make sure we get to Jim's comments on emissions Jessica?

MS. LEWIS: Thank you. Another thing to note about these results is that they are intended to capture impacts on the industry as a whole and don't necessarily reflect differential impacts on different

subgroups of manufacturers or individual manufacturers.

MR. BROOKMAN: Before you move on Mike made a special plea for comments on conversion costs and also anything additional in shipments, so let's see if there is anything additional at this time on those subjects before we move on. Yes, Rett?

MR. RASMUSSEN: Rett Rasmussen. My company has never been faced with having to make such a drastic change in a relatively short period of time. I don't know what it is going to cost and I'm one of the more sophisticated, more experienced guys in the industry with regard to design of product. There's a whole host of other guys that are newer to the industry or not very good at what they do already without having to go to something as sophisticated as electronic ignition systems.

You know, I don't know and here's the gas log guys. There's a whole lot of other folks out there, we are the ones that are here. I welcome you to try to get the data out of them. As far as shipments go the same thing I you know, who knows

what it is going to be, it's a crap shoot, we have never been down this path before and as far as data goes it's not what our companies do, that's what you guys do, you guys are in the numbers business on that, our numbers are sales of product, shipping product, manufacturing product, but it is based on consumer demand and not you know, as far as projecting out, it is making sure we have enough to go for the next couple of months of raw materials, not necessarily way down in for what you are doing, I don't know, the data doesn't exist, that's the problem.

MR. BROOKMAN: Yeah go ahead Leslie?

MR. BORTZ: I'm sorry I can't get all three things together at one time. Cost, you mentioned $10,000 as a cost number that was discussed. We have mentioned that the cost of certification alone is 12 to 15 thousand dollars for each product and we have an ANSI certified lab which costs us a lot of money and Rett doesn't.

Most gas log guys don't so the cost is going to be a heck of a lot more than $10,000.00.

MR. BROOKMAN: Thank you --

MR. BORTZ: $16,312.00.

MR. BROOKMAN: Jessica?

MS. LEWIS: Thank you so to jump ahead and look at some of the impacts on subgroups of manufacturers DOE first looked at the impacts on small businesses. Out of 90 total hearth manufacturers identified, DOE identified 66 as domestic small businesses. This classification is based on the Small Business Administration's small business size standards which set a cap of 500 employees or fewer for a manufacturer in the hearth industry to be considered a small business.

We use publicly available information to research small business, contacted small businesses directly and also asked other manufacturers for information about small business during the course of interviews. As mentioned repeatedly over the course of the day manufacturers have expressed concern that a standard eliminating standard pilot lights would impact their ability to compete with large manufacturers.

This concern stems largely from a difference in purchasing power between small and large manufacturers and the idea that because large manufacturers produce at higher volumes they would be able to source components at a lower per unit price.

To evaluate these concerns we modeled the difference in cost that small manufacturers might face when sourcing electronic ignition system components at lower volumes. The regulatory flexibility analysis included in section 6B of the NOPR and also discussed in chapter 12 of the TSD presents the results of that analysis and in short it suggests that a standard eliminating standing pilot lights could lead to a higher increase in per unit MPC's for manufacturers producing at lower volumes relative to manufacturers producing at higher volumes.

Would anyone like to comment on that before I move on to the discussion of gas log set manufacturers, yes?

MR. GOLDMAN: Yes this is Jack Goldman of HPBA. I guess this comment was made earlier but I

guess we would like to know who the other large manufacturers are, we count one or two and I'm the trade association president, I know my members, I know the players in the industry I just don't know who those other companies are and I think if a third of the companies are considered large and they are really just one or two I think it really changes the results of this analysis so I would like to know who they are.

MR. BORTZ: Who are of the --

MR. GOLDMAN: The 22 large companies.

MR. BORTZ: They actually have a list and some of the 90 that they had at the beginning were foreign owned companies.

MS. LEWIS: That does include foreign manufacturers.

MR. GOLDMAN: Even with that I don't see the numbers.

MR. BORTZ: Well I said that the number is more like 3,000 entities affected by it and I changed my mind now I think it's more like 4,000 and I am being honest, Leslie Bortz again. By 90 is a

specific number that you have, I went through it and there were so many that were large, and there are so many that were foreign and you came up with 66 out of 90, that part is right, the 90 isn't right.

MR. BROOKMAN: Okay thank you Leslie, yeah?

MS. LEWIS: Thank you.

MR. GOLDMAN: Where is the list?

MS. LEWIS: The list is published in I believe chapter 3 of the technical support document and to clarify how we determine the number of manufacturers, we are focused on manufacturers of the final product that would be tested and sort of certified to comply with this standard so we are looking at manufacturers of a gas fireplace or a gas log set as opposed to the components.

We also don't count multiple subsidiaries of the same parent company, some manufacturers may have a wide variety of brands but we would only count those based on the one parent company.

MR. GOLDMAN: If a large company in Europe sells a little bit in this country are they

1 considered a large manufacturer for this analysis?
2 MS. LEWIS: They would be.
3 MR. GOLDMAN: That's just absolutely
4 wrong.
5 MS. LEWIS: Well I would definitely invite
6 you to look at the list included in chapter 3 of the
7 TSD and please come back to us with comments you know
8 if you feel we have mischaracterized anything.
9 MR. GOLDMAN: There are two major European
10 companies that sell in the U.S. through U.S.
11 subsidiaries and they aren't major and their U.S.
12 operations are small. And that's it, after that
13 there might be a company that sells a handful of
14 stoves and if they are considered large and not
15 affected then the effect you are having is to have
16 more foreign ownership and production of stoves at
17 the cost of U.S. operations. I just think if that is
18 your assumption you are absolutely false.
19 MS. ARMSTRONG: So I don't think anyone
20 this is Ashley, I think you mischaracterized that
21 because I don't think we are saying they are not
22 going to be affected, I don't think that's fair to

say that the Department's analysis at all suggests that, it is just that we are required to look specifically at small businesses and the small businesses are set up by definition and the definition is not something that DOE creates of itself, it is something that is a size standard that is created by SBA and includes subsidiaries and all that kind of stuff, it has nothing to do with sales.

So I'm not here to argue with you.

MR. GOLDMAN: I've resisted saying this --

MS. ARMSTRONG: Please let me finish because I sat here and let you finish all day.

MR. GOLDMAN: I've spoken twice.

MS. ARMSTRONG: Well you don't have to be rude.

MR. GOLDMAN: Oh so I'm rude, you have never been rude today?

MR. BROOKMAN: Let's let Ashley finish, let's let Ashley finish, go ahead.

MS. ARMSTRONG: My point was that we have our list, its publicly available we would welcome your input on it but it has nothing to do with sales

so that is all I was trying to say and clarify.

MR. BROOKMAN: Jack do you wish to continue?

MR. GOLDMAN: I think if you had talked with us at our offer to talk with you years ago we wouldn't be having this discussion now.

MR. BROOKMAN: Okay I'm going to take final comments here because we have to get through the rest of these slides, Rett?

MR. RASMUSSEN: Yes on the list that is in chapter 3 you have either got a single asterisk, two asterisks or no asterisk. It shows that all the foreign manufacturers therefore would be -- or you didn't classify them by size or they are all large manufacturers according to your asterisk chart here, the way that you have applied the asterisk, so I would find that that is probably hard to believe that every foreign manufacturer is greater than 500 employees.

MS. LEWIS: I believe most of them were large, I don' t know the number off the top of my head and I think often it has to do with a parent

company so you have a smaller subsidiary that might in itself appear to be a small company but it is owned by some multi-national firm.

MR. BROOKMAN: I think we are gaining ground on this --

MR. RIVEST: Mike Rivest isn't the issue -- excuse me.

MR. BORTZ: Take a look at my list of 3,000 and you will decide how many there are but there are more than 66 names that are going to be seriously affected by this rule.

MS. LEWIS: And the last point to that is that 66 also does exclude distributors and retailers and that may account for part of the difference in the numbers we are discussing.

MR. BORTZ: That causes a big jump of making up the difference there are still entities that will be affected by this rule, whatever you call them they are still businesses, small businesses in the United States.

MS. LEWIS: Thank you, moving on to the subgroup analysis for manufacturers of gas log sets.

In researching the market we identified 23 gas log set manufacturers including 17 small businesses during interviews manufacturers stressed that gas log sets represent a distinct market segment.

MR. BORTZ: Wait a second -- I'm sorry.

MS. LEWIS: Unlike many other hearth products they are designed for use in existing wood burning fireplaces. They compete with wood and wax logs and unlike some other hearth products as we have discussed today their sales do not follow trends in new housing construction.

Manufacturers also noted that electronic ignition systems take up more space than standing pilot lights and cannot be as easily concealed in gas log sets which are not sold as part of packaged units in the same way many other products are.

Manufacturers also indicated that electric outlets may not be located in close enough proximity to existing wood-burning fireplaces to easily accommodate installation which could require the use of batteries or extension cords or else drive up installation costs.

Finally manufacturers expressed concern that a transitione to electronic ignition systems could drive up the price of gas log sets and in doing so lead to a decline in consumer demand.

To address that concern we looked at the increase in MPC that a switch to electronic ignition systems would likely entail. This table shows the percentage increase in MPC for different types of gas hearth products estimated to result from a switch from standing pilot light units to units with electronic ignition systems and as we can see impacts are most severe for gas log sets, for vented gas log sets we are looking at an increase of 37% of MPC, for unvented gas log sets, 27% of MPC which compares to 9% and 11% increases for vented and unvented fireplaces, inserts and stoves respectively.

Outdoor hearth products also fall in the same range as the gas log sets however there were a few factors that would likely mitigate impacts on outdoor hearth products including the fact that they would have the option to transition to less expensive matchless systems which unvented gas log sets are not

allowed under ANSI standards.

At this time I would like to request comment and feedback on this analysis or anything else we discussed as part of the manufacturer impact analysis.

MR. BROOKMAN: Leslie.

MR. BORTZ: Leslie. It says that your vented gas log set price of going up 37% our price is up by 71%, that's our price on our price list, that's what we charge. We are not in business to overcharge for stuff because they we can't sell it. Our price is up 71% for doing that.

MR. BROOKMAN: Okay thank you. Additional comments before we move on?

MR. BORTZ: Which doesn't include the cost of installation which is probably another 250 bucks or more additionally, the price has more than doubled.

MR. BROOKMAN: Yes Rett?

MR. RASMUSSEN: Rett Rasmussen. I would like to bring up that the incremental -- when you buy a car they sell you on the base and then they go up

in incremental amount to sell you the sport package or the luxury package or things like that and your incremental cost to go to that additional benefit is a small portion. You have already been sold on the big part.

The problem you have with unvented gas log sets is right now they have manual safety controls, millivolt controls with wall switches, go up to remotes and then electronic ignition. This proposal would take then from zero not buying an unvented gas log set to the full enchilada up to with an electronic ignition system.

With vented gas log sets some people will be able to continue to buy natural gas, match lighted ones and then make the full leap to electronic ignition systems. For propane vented ones they are in the same boat as the vent free propane ones, it's all or nothing so you don't have that ability to ease somebody into the higher price.

That is going to severely impact the consumers buying decisions because they have to swallow the big pill. Some of the other savings that

come up as far as you know environmental savings and this and that, that's not money that they can take off of the purchase price that's just vapor savings, that has nothing that influences consumer choice and consumer demand, thank you.

MR. BROOKMAN: Leslie, keep that microphone close.

MR. BORTZ: We answered a question from Navigant how would energy conservation standards impact the companies' manufacturing capacity in both the short and long term. In the short term we would have a lot of excess capacity and in the long term we would likely be out of business.

MR. BROOKMAN: Moving on to emissions analysis and James is this where you want to comment?

MR. HOUCK: Yes.

MR. BROOKMAN: Get ready.

MR. ROSENQUIST: I am Greg Rosenquist stepping in David Siap who had to catch an airplane. Next analysis is the emissions analysis. This is where we take energy savings from the national impact analysis and convert them to emission savings for

carbon dioxide, NOx, N20 methane, SO2 and mercury and we do this by DOE does this by looking at the annual energy outlook and deriving emission factors for each one of these emissions that you see there.

This is the results of the analysis this is the amount of savings that come as a result of the energy savings that we will calculate from the national impact analysis.

And then the next step is to--

MR. BROOKMAN: James, please.

MR. HOUCK: James Houck. The reason that I am sort of slow to start -- I don't know where to start it is so complex and there is so much information here but I will say this. I would ask you why are we doing this, what is the most important thing here and I say what's paramount is human health and welfare. This has been neglected in this role.

Air quality as measured by the standard air quality metrics in the United States has this air pollutants criteria air pollutants, climate change agents will all be impacted negatively by this rule. And going along with this will be the health and

safety not really the air quality, but the health and safety of residential occupants and I'll explain why.

Really there are two categories of hearth products here. There is a gas log sets and the gas fireplace inserts at least for this analysis on air pollution there is two categories. These are retrofitted in the wood burning fireplaces if you got a gas log set you should put it into a wood fireplace. No longer do you have a wood fire, now you have a gas fire that's one category.

The other category are free-standing fireplaces sometimes called gas stoves and also the traditional gas fireplace everything thinks about wall mounted or inserted into the wall. In the future these are in new homes or remodeling. A consumer has a choice, they can choose wood or they can choose gas results in some electric, but primarily the two choices are wood and gas.

So if a person does not choose gas the alternative is probably wood. We have all heard today that this is going to cause a significant increase in the cost of particularly gas log sets but

other gas hearth appliances as well. Therefore a consumer, like most consumers, are going to be discouraged in purchasing a gas fireplace in a new construction or retro-fitting their existing wood fireplace.

Now why is this important? The emissions from solid fuel combustion, solid fuel fireplaces are dramatically, dramatically higher than they are from gas appliances. This is why they are recognized by many state and local air quality regulators, many of them either specifically require, encourage, specify whatever adjective you would like for people to use gas fireplaces rather than wood fireplaces.

So when I saw in the federal register in addition the proposed hearth products standards would have significant environmental benefits I kind of went oh my goodness this is not right.

Specifically in terms of health impacts is fine particles. Now this has been a big issues in the United States and is often referred to as PM2.5. A number of state and local regulatory agencies are struggling with obtaining national ambient air

quality standards.

A national air quality standards are mandated under the Clean Air Act. U.S. EPA requires state and local air quality jurisdictions to obtain national quality standards. They are required to come up with the state implementation plan if they don't and a maintenance plan if they are marginal.

Frequently again frequently state and local air quality agencies say you should you have to, again there are various adjectives as a way to discourage wood burning and encourage gas burning because they all recognize that the air quality issues associated with wood is more serious than gas.

So criteria pollutants, okay criteria pollutants are set forth under Section 109 of the Clean Air Act, 40 CFR Part 50 requires the administrator of the EPA to do things about it, I'm simplifying things because I know we are all tired here. There are 6 criteria air pollutants two of which are very important here and one is carbon monoxide and the other as I alluded to is fine particles.

I managed to work and there is very little work out there, we actually compared in a realistic fashion air emissions from wood combustion fireplace used in a typical fashion and gas combustion in a typical fireplace, actually several fireplaces and we found that again consistent with pretty much everyone's intuitive understanding that there were 148 times more carbon monoxide emitted in a typical fireplace used with wood burning wood than there was with natural gas.

And amazingly, amazingly 568 times more particles, fine particles emitted from wood combustion than with natural gas and even more significant particles -- fine particles less than 2 and microns that are produced from combustion are very small particles, they are sub-micron, they call these sub-microns and those are the most health injurious of all particles.

So wood combustion in the fireplace turns to criteria pollutants, again regulated in the Clean Air Act, a problem for many state and local air quality jurisdiction, widely recognized as an impact

to human health and welfare are going to be very negatively affected by this proposed rule, simply because people are going to choose less gas appliances because they are going to cost more and I would argue what I am hearing of gas log set with some kind of unattractive box they are going to be less attractive.

The criteria pollutants are just one, the other is hazardous air pollutants, known as HAPS, the acronym HAPS that is also defined under the Clean Air Act, actually the Clean Air Act Amendments of 1990, at Section 122 and I'll read this sentence because it is easier to read it:

HAPS are also known as toxic air pollutants or air toxins and are those air pollutants that cause or may cause cancer or other serious health effects, such as reproductive effects or birth defects or adverse environmental and ecological effects.

Originally the list was 187 that has gone up and down a little bit. Many of them are organic compounds and I know most of you are not organic

chemists but when you look at the chemical makeup of wood, cellulose, lignin, hemicellulose, resins you would expect a number of the compounds specifically listed on the HAPS list to be emitted by the incomplete combustion of wood and this includes and you will recognize some of these as bad actors:

Cetalaldohyde, benzene, catechol, cresol (o,m and p) dibenzofurans, ethyl benezene, formaldehyde, hexane, methanol which is also known as wood alcohol by the way and there is a reason for that name, naphthalene, phenol, propionaldehyde, styrene, toluene, xylenes (o,m,p) isomers and polyclic organic matter.

And that's just a few. EPA selected this list because these are the kinds of things that are common and common industry in North America but I would always say there are more of any compounds than there are stars in the universe so there would probably be many other toxic air pollutants, organic compounds emitted from wood combustion that are not on this list.

We specifically measured some of these

HAPS compounds. Formaldehyde there were 64 times more masses of formaldehyde emitted from wood combustion than there was gas combustion, 13 times more benzene and 107 times more of polyclic organic matter.

Again as I noted that there is both -- there are many organic compounds that are on the list that are toxic and these would be in a particular phase or in the vapor phase and petition between the two. As I noted there was 568 times more particles emitted, particles, wood combustion are 70 to 90% organic compound saw a lot of them are in there and also we measured vapor in this test and there was a parameter called non-methane vault or organic compound MVOC and we found that there were 30 times more mass of MVOC emitted from wood combustion then there was from gas combustion.

So the two regulatory metrics of local air quality degradation compound pollutants that are found in the United States unquestionably residential wood combustion emits a tremendous amount more.

Now climate change, well climate change in

the past people have said well you know buy a mass combustion the carbon dioxide emitted from that is biomass neutral people plants photosynthesis it and take it back. That may be true there is some argument on that.

Also methane is 80% excuse me natural gas is 80% to 90% methane and so people say well there is periods of losses from natural gas, notwithstanding the fact that there might be a credit for the carbon dioxide from biomass combustion and that methane from the leakage of our transmission system of natural gas may contribute to greenhouse gas, still wood combustion in a fireplace produces more of a climate impact than does natural gas combustion.

And the reason being recent and I say recent in the last decade recognition that black carbon is a serious greenhouse gas agent and it's a pretty complicated story but I refer anyone who wants to research this EPA's 2012 report to Congress on black carbon which is readily available on the web gives a pretty good description of the whole issue.

One thing I want to point out though that

may not be apparent in reading this document is there are two reasons that black carbon is considered a bad greenhouse gas actor. One is basically absorption of energy because it is black in the atmosphere. The other is changing to snow, makes snow black and that causes light energy to absorbed rather than to be reflected. This is particularly relevant and bad for residential wood combustion because a smokestack chimney from a fireplace is close to the ground, it's 15 to 30 feet off the ground and by the very nature fireplaces are often used where there is ice and snow so you have something that directly impacts the ice and snow and it is there when the ice and snow is there.

So I would argue that the black carbon is even a bigger issue than one would thing from residential fireplace combustion, so that's the air quality issues. But hand in hand with that is there is home safety. And I cite from the notes here the National Fire Protection Association, in their document which again you could find there are many of them on the web you can find.

In the time period 2004 to 2008 they cited 26 times more structural fires from solid fuel fireplaces than they did from gas fireplaces. The primary reason is creosol accumulation. The very same thing that produces fine particles produces organic vapors that condense on the walls of a chimney when a chimney is cold and I think many of you have heart of chimney fires and that's what causes the structural fires.

Now this 26 times more structural fires is real because when you add up the number of using VO numbers, the number of fireplaces that are used for secondary heat that are natural gas and propane it's pretty close the number of wood fireplaces used for secondary heat, so there is 26 times more fires is a pretty good reflection of the bigger risk in terms of safety in the home.

That 22,500 fires caused 17 that's what the number is for residential wood combustion, 22,500 fires caused 17 civilian deaths, 96 civilian injuries and 172 million dollars in direct property damage as compared to the 860 fires that were caused by natural

gas fireplaces which was 0 civilian deaths, 13 civilian injuries and 30 million dollars in direct property damage.

And then there is one more thing and it relates to the air quality. Because residential wood combustion produces much more air pollutants and because you have with a wood fire place an open chimney situation where you have a smoldering fire at the end of the burn the draft lessens as the fire box temperature cools yet you are still producing particulates and carbon monoxide, particularly carbon monoxide.

And anecdotally and I can finish this up when you go to a person's home that has a wood fireplace you often smell the wood smoke smell, that's a manifestation of the back spill of pollutants into the home, thank you.

MR. BROOKMAN: Okay thank you yes Leslie.

MR. BORTZ: Can I ask Jim was some of that work done on our products?

MR. HOUCK: Yes this is Jim Houck, yes it was. I can tell you the brief specifics there were 3

different natural gas products and 1 LPG product that was compared against residential fireplaces.

MR. BORTZ: I can only say that in our products he didn't use enough wood to compare it to because 11 - 15 pounds or whatever it was a small amount of wood a guy who builds a real fire builds it with 18 to 20 pounds of wood so his number is off by another third there would be much more problem with wood.

MR. BROOKMAN: Okay.

MR. BORTZ: Because a guy who builds a big fire doesn't build an 11-15 pound.

MR. CYMBALSKY: So this is John from DOE and I want to thank you for that -- that was actually informative to me. Getting back to I think the part of the argument you made that is of most interest to our analysis is the presumption that the wood and the gas are perfect substitutes for one another.

So my question to you is you have mentioned how the maybe not so much for log sets, but the industry has been moving towards the ignition and we have gone through some periods lately where

natural gas prices have had some pretty big ups and volatility to say the least. Some years it was really, really high gas prices in the not too distant past.

I was wondering if you can correlate these economic impacts to your consumers with switching from wood to gas over that same time period so that we could potentially build this sort of fuel switching model that you are suggesting by you know making the price of your product a little bit more expensive. The presumption is they will switch to wood but I guess I would like to know how or if you have data or anything like that to support it.

MR. BROOKMAN: Leslie?

MR. BORTZ: I have data on our sales and there is no correlation at all that I can see.

MR. CYMBALSKY: Very helpful.

MR. BORTZ: The correlations that I saw were after September 11, 2001 the whole place shut down but after events Sandy whatever where ice storms, whatever we would get a big pickup in sales of both vented and unvented, I think probably more

unvented logs because of

MR. CYMBALSKY: The lack of electricity or --

MR. BORTZ: But I don't see any correlation.

MR. CYMBALSKY: And that was my question to press or to build in a fuel switching model would be nice to have some economic behavior that suggests that that actually exists because my thinking with the wood is that it is generally not marketed in the people that are using wood primarily are in areas where they are not actually paying for the fuel, they have wood at their disposal so.

MR. BORTZ: Go out and take a look at the people who are selling wood.

MR. CYMBALSKY: No there are some but I think there has been a long trend of that declining here in the northeast anyway.

MR. BORTZ: Wood burning fireplaces.

MR. BROOKMAN: Jim do you want to make an additional comment?

MR. HOUCK: Yes in response to that.

MR. CYMBALSKY: Again it's just another data request. I'm not saying what you are saying is incorrect I'm just -- I would like to see some data that would allow us to actually do an analysis over the fuel switching here because we do it for other products because we see it.

MR. BORTZ: You want data that shows.

MR. CYMBALSKY: I mean HEA a long time ago, because you know I have been in this business I hate to say it for over 25 years now, they used to do a fuel switching survey that actually included wood and natural gas and they did look at fireplaces as well at one point in time.

MR. BORTZ: I think that when gas is plentiful and as you know since the beginning of the 1970's gas has been either going to be out of -- there's going to be no gas in three years or we are going to have 100 years supply or there's no gas, you know it has gone up and down.

Obviously when gas is plentiful it is easy, you get more buy because the gas companies want it.

MR. CYMBALSKY: And I think for the consumer it's a convenience thing right, the gas product is much easier to use than the wood product.

MR. BORTZ: Right now if you compare and I think our log sets would be comparable on this the cost of natural gas compared to the gas of wood, the cost of natural gas is one-quarter per hour in Los Angeles, I didn't do it everywhere but -- in Los Angeles it has high prices for wood and reasonably high prices for gas but higher for wood.

MR. BROOKMAN: Jim a follow up?

MR. HOUCK: Yes in response to John's questions, comments there. First of all your thought about the purchase of wood and that's not entirely true there is some fraction of people that do both and actually its very outdated but it is one of your REC studies is back in the days before there were electronic and I can't remember the exact date I think it's like 1993 or something like that.

There's actually a question as to why do you buy wood and it's a substantial fraction I think over half that buy their wood so that's one thing.

The other thing is fuel switching. It is very difficult to get a direct correlation, just like my comment was on the correlating thing that's how these are because there are so many things going on.

But one only gets by looking at the Department of Energy records you need to look at for example the fraction of people that heat their home with coal. In 1949 over half the people in this country heated with coal as natural gas network because more prevalent and inexpensive that went away with other issues too but now less than a tenth of a percent heat with coal and over 70% heat with natural gas first air furnace.

Similarly during the 70's there was a big influx in the number of wood burning excuse me wood burning stoves because of the concern of the availability and cost of fossil fuels so yes there are certainly trends that get an exact one you could use in modeling I'm not sure about that.

MR. BROOKMAN: Tim Ballo?

MR. BALLO: Tim Ballo with Earth Justice and just to follow along here because I do care about

what happens in the air. There's a couple of points though I think we need to get to the bottom of the relative use duty cycles for a fireplace versus gas logs. I mean obviously if I have to flick a switch I am going to you know, and I don't have to stack wood and build a fire it's somewhat easier to use the appliance that might be used more often.

The other thing that I just want to encourage the Department to consider if you do want to go down the path of doing this kind of detailed analysis which I think you know would definitely help inform the analysis for the proposal is to consider as you do sort of the full fuel cycle approach to energy throughout the rest of the analysis do so here as well because you know the production and the extraction of natural gas imposes a lot of environmental harms but I don't necessarily -- that I think are different from the environmental harms created by wood, production of wood for heating including some of the same HAP air toxic issues that were discussed that original from wood burning.

A lot of that same nasty stuff is produced

when gas is produced.

MR. BROOKMAN: Frank Stanonik.

MR. STANONIK: I'm just going to because we are getting close to 5 I'm just going to jump here because there's a point I want to make that was kind of alluded to but I think it's important because at the moment DOE's analysis has totally discounted it and that's the fact that the analysis assumes there is no change in the utility of the product by this requirement and I think it needs to be recognized that if these products do have a utility -- let me rephrase that.

Those models of these products that don't require any external electric supply have a very real utility that when those customers, those homeowners lose electric power they have a source of heat and that is for the people who have those products and are in that situation that's a very real and very important utility and I think DOE at the moment the analysis is just discounted that this proposal might have any effect on utility and I think that's incorrect.

MS. ARMSTRONG: So I have a question, this is Ashley and Frank can follow up and this is purely from my own experiences but I actually have a fireplace it's vented though that has EI and its fully functional when the power is off so I guess I'm asking you is there a certain part of the market that you know either without electricity would be impacted because mine is fully functional when the hurricane hit my house and I had several days without it, the battery is fine, it worked fine.

So is there something with the EI that prevents it in certain situations? I'm just trying to understand that. Mine was made by someone here.

MR. STANONIK: Frank Stanonik so actually my point was that okay so if you are going to go down -- if you are doing this analysis okay and let's say your options no -- let me rephrase that. The options you should look at would be EI that requires an external power supply okay or EI that doesn't okay.

Now obviously the ones that don't still have the utility but I think and again your products are obviously working very well but I think for the

manufacturers there are significant questions and issues still about reliability and whatever else with those types of systems and then you still have to get to that issue of okay so again I don't know how often do you have to change your battery I don't know, it's another cost, right.

MR. RASMUSSEN: Rett Rasmussen, Ashley is your fireplace a wood burning fireplace or a gas fireplace -- it's a gas fireplace unit. There are all different types of electronic ignition systems out there. There are ones that are battery powered only there are some that have their 120 with battery backup --

MS. ARMSTRONG: They are both.

MR. RASMUSSEN: Alone so you know there is all those variety of types. I did want to mention one thing you know in response to Tim. In switching from wood to gas that there is quite a bit of usage due to the convenience of gas -- there is for the first month until they get the first gas bill and then it's pretty self-regulating. People enjoy the convenience of it until they realize that there is a

cost of actually having to pay for all of that gas and then they temper themselves back to what their budgets are and what they really -- the impact they want to feel of their usage of that product so yes, big spike first month tails off after that, okay.

MR. BROOKMAN: So as it is almost just a few minutes before five, we should take final remarks briefly for closure here.

MR. DAY: I want to make one comment on the battery issue and that is you know there are products that are sold with IPI with battery backup for power outages and so forth and that's great but if you know one of the President's points in his climate plan is that we need to be resilient as a society we are seeing more and more extreme weather events and the studies that have been done on that to really look at what went wrong in Katrina and what could we do better.

One of the first things that comes out of that is batteries are almost the first thing to go and it's just -- that has been the experience whenever there is a problem and you know the short

answer I think is that having a system that requires batteries in a major power outage situation can't compete with having a product that requires no external source of electricity, it is not equivalent, thank you.

MR. BROOKMAN: So then closing remarks from John Cymbalsky.

MR. CYMBALSKY: Thanks everyone for coming I really do appreciate the dialogue that we did, we gained a lot of useful insight from you and we hope we continue to throughout the comment period. We have heard from a few of you about an extension and so obviously we are open to that we just need a letter and a reason why you need an extension and of course DOE will consider that upon receipt. Yes, a PDF letter to me would be perfectly acceptable and then we will consider that comment extension based on the reasons given within.

So for those of you traveling get home safe and again we really do appreciate your attendance and your conversation today, bye.

(Whereupon at 5:01 p.m. the meeting

1 adjourned)

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