

Guidelines for Home Energy Professionals: Standard Work Specifications for Single Family Energy Upgrades

Response to Comment Received November 2010 to January 2011

ID	Name	State	Section	Comment	Date	Status	Response
1	Richard S. Duncan, PhD, PE	PA	0	<p>GENERAL COMMENT ON THE OVERALL DOCUMENT</p> <p>Spray Polyurethane Foam (SPF) is a high-performance insulation and air-sealing technology. From 2006 to 2008, the use of SPF insulation has increased by nearly 100%. While traditional fibrous insulations, such as cellulose and fiberglass, were included in Section 6 and 7 of the current document, SPF was not included. SPF insulation provides unique and superior solutions for residential retrofit applications, such as:</p> <ul style="list-style-type: none"> * creating unvented/conditioned attics and crawlspaces * insulating and air sealing exposed ductwork, rim/band joists and exposed floors in the interior of homes * insulating low-slope roofs and walls on the exterior of homes * providing moisture control and improved structural performance (closed-cell SPF) <p>We believe that SPF insulation, both closed and open cell, must be included in the final document.</p> <p>Richard S. Duncan, PhD, PE Technical Director, SPFA</p>	1/5/2011	Accepted	Rick Duncan has developed a group to add spray polyurethane foam to this document.
2	Karl Thonnes	FL	0	<p>Whiting Construction has been installing spray polyurethane roofs for over 30 years. It is best insulation and air barrier available for buildings today. Please make sure it is included in the work spec. for energy efficiency upgrades.</p> <p>Thank you. Karl Thonnes CEO / Whiting Construction, Palm City, FL.</p>	1/7/2011	Accepted	Rick Duncan has developed a group to add spray polyurethane foam to this document.
3	Jim Andersen	WI	0	<p>Spray polyurethane foam insulation has been in use for over 40 years as an insulation product used to save energy and stop air leaks. SPF has been part of many government programs such as NIST, Energy Star, Dept. of Defense, etc. It has been used by Weatherization contractors for rim joists, band joists, air leakage control, basement foundation walls and other areas' needing space saving insulation systems. This document is incomplete and not representative without SPF insulation systems! It needs to be included.</p>	1/7/2011	Accepted	Rick Duncan has developed a group to add spray polyurethane foam to this document.
4	Steve Baden	CA	0	<p>I noticed that the document does not address all insulation products. Spray Polyurethane Foam is specifically not addressed. The federal government should not "pick the winners" in this document. Instead it should address all of the products that can effectively be used in a retrofit of a home. Please amend the document to cover all forms of insulation.</p>	1/7/2011	Accepted	Rick Duncan has developed a group to add spray polyurethane foam to this document.
5	Chris Stratton	CA	1	<p>Regarding the appendix for section 1: What does the "deferral of WAP services" section mean? Also, the contents of the "Miscellaneous Additions" section should be expanded into individual specifications, or should be removed from this document.</p>	12/21/2010	Accepted	Industry Home Assessment Standards Condensed: partially incorporated. Changed heading names, but did not remove miscellaneous section as requested.
6	Gary Hodgden	KS	2.1	<p>Repetition: These components are repeated in many places. While this is good for training outlines, it is damaging to end user clarity.</p> <p>If there is an important difference in these for a specific topic, the difference will be obscured as the reader jumps past the repetitious appearing text.</p> <p>Meanwhile, the content of the topic that has such repeated text is less likely to be consumed in a clear and highlighted manner. I recommend sections that call out the items strongly yet not repeated at the cost of missing other important content.</p>	12/12/2010	Accepted	The safety sections have been condensed to reduce repetition
7	Charlotte Brody	VA	2.1	<p>It would be helpful to include a general statement at the beginning of each of the worker safety and health sections. For example: Improve worker safety and health by identifying common dangers and available risk-mitigating actions.</p>	1/4/2011	Accepted	
8	Charlotte Brody	VA	2.1	<p>We propose that every worker safety and health section begin with a general statement: Improve worker safety and health by identifying common dangers and available risk-mitigating actions.</p>	1/4/2011	Accepted	Incorporated into Global WS section and into each individual section.
9	Gary Crow	FL	3	<p>Appendix C Infiltration credits should not be allowed. Mechanical ventilation should provide all of the required/necessary ventilation. In exhaust only systems why would you allow "fresh" outdoor air to come through uncontrolled openings in the walls, floor and/or ceilings? Why would you allow this fresh air to pass through insulation and other building materials before it reached the occupants? Infiltration is not constant from day to day or from season to season. Why is no infiltration acceptable during certain periods? The assumption that mechanical ventilation is additive to infiltration is incorrect.</p>	1/5/2011	Accepted	I agree with reviewer but can't find reference. Was incorporated at 3.19.4.
10	Chris Stratton	CA	3.1	<p>All these specifications are redundant with the specifications in the Health and Safety topic in the previous section</p>	12/21/2010	Accepted	Eliminates redundant pages.
11	Gary Crow	FL	3.5	<p>Are backdraft dampers required for Surface Mounted Ducted fans as they are with Inline fans, multi-port fans, and clothes dryers?</p>	1/5/2011	Accepted	Surface mounted Ventilation - 3.5
12	Gary Crow	FL	3.7	<p>What is the definition Direct Vent? Is it a direct vent water heater, fireplace or furnace?</p>	1/5/2011	Accepted	3.7 - Direct Vent changed to Through the Wall
13	Chris Stratton	CA	4.1	<p>Consolidate non-section-specific Health and Safety specifications into a single section</p>	12/21/2010	Accepted	Eliminates redundant pages.
14	Matt Redmond	NY	4.21	<p>Although the penetration around the duct work is referenced, actual duct air sealing is not mentioned and MUST be as a Health and Safety issue.</p>	1/7/2011	Accepted	Added as 4.21.2
15	Chris Stratton	CA	5.1	<p>Consolidate non-section-specific Health and Safety specifications into a single section</p>	12/21/2010	Accepted	Eliminates redundant pages.
16	Frank Stanonik	VA	5.15	<p>This is the same as 10).</p>	1/7/2011	Accepted	Removed 5.15 - Commissioning Equipment Venting System
17	Tolle Graham	MA	5.38	<p>Identify any mercury containing thermostats and appropriate disposal</p>	1/7/2011	Accepted	Appears to be incorporated in what's now 5.37.3.
18	Matthew Hansen	MI	6	<p>This section refers only to loose fill, dense pack, or batt as options for insulation. This excludes entire product line options such as rigid foam or spray applied foam insulations. Foam insulations are used broadly throughout the industry for insulation and energy upgrades. The SPFA is submitting an additional section for spray polyurethane foam insulation that should be added to this document. In addition, rigid foam insulation should be included for applications such as exterior insulation during residing or rim joist insulation in conjunction with a sealant. The Weatherization Assistance Program Technical Assistance Center (WAPTAC) that is linked on the DoE website includes Field Standards and Guides such as the Midwest Weatherization Best Practices that include rigid foam and spray applied foam as appropriate insulation materials. This was an oversight on part of the committee that should be corrected prior to publication.</p>	1/7/2011	Accepted	Rick Duncan has developed a group to add spray polyurethane foam to this document.
19	Paul Brand	MN	6	<p>Having almost 15 years of experience in the construction products industry, I was very disappointed to find that spray polyurethane foam (SPF) insulation was not included in the materials lists in section 6. The benefits of SPF over conventional insulation materials are well documented and should be included in the Workforce Guidelines for Home Energy Upgrades. Several SPF products provide R-values well in excess of traditional insulation materials and also offer effective air sealing and moisture management all in one material. I urge you to reconsider your materials listing in section 6 to include spray polyurethane foam.</p>	1/7/2011	Accepted	Rick Duncan has developed a group to add spray polyurethane foam to this document.

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20	Matthew Hansen	MI	7	This section refers only to mineral fiber as an option for insulation and latex sealants for air sealing. This excludes entire product line options such as rigid foam or spray applied foam insulations and latex or polyurethane foam sealants. Foam insulations and sealants are used broadly throughout the industry for insulation, air sealing, and energy upgrades. The SPFA is submitting an additional section for spray polyurethane foam insulation that includes sections on crawl spaces and basements which should be added to this document. In addition, rigid foam insulation should be included for applications such as wall insulation or rim joist insulation in conjunction with a sealant. Latex sealant references to ASTM C834-10 or ASTM C1193-09 should also reference ASTM C1620-05 for foam sealants. Mineral fiber references to ASTM C1320-05(2009)e1 should also reference ASTM C578 or C1289 for rigid foam insulation. The Weatherization Assistance Program Technical Assistance Center (WAPTAC) that is linked on the DoE website includes Field Standards and Guides such as the Midwest Weatherization Best Practices that include rigid foam and spray applied foam as appropriate insulation materials. This was an oversight on part of the committee that should be corrected prior to publication.	1/7/2011	Accepted	Rick Duncan has developed a group to add spray polyurethane foam to this document.
21	Charlotte Brody	VA	7.4	is this really health and safety?	1/4/2011	Accepted	Good catch. This should be a separate topic in this section.
22	Shelley Kawamura	CO	1.1.1	Home assessment should include inspection of wood burning appliances	1/7/2011	Accepted	
23	Tolle Graham	MA	2.1.12	Very important section -should be at top of chart and combined with the written site-or task specific hazard assessment	1/7/2011	Accepted	Moved this to the top. Need to look at how to integrate the hazard assessment
24	Charlotte Brody	VA	2.1.2	If the risk of airborne contaminants cannot be prevented, proper respiratory protection must be provided and worn. OSHA 1910.134 should be cited and the footnote number needs to be resized.	1/4/2011	Accepted	Incorporated language for better clarity.
25	Tolle Graham	MA	2.1.3	add OSHA standard in chart	1/7/2011	Accepted	This appears to be in the chart as a reference note, like all the other OSHA and other standards.
26	Shelley Kawamura	CO	2.1.5	Continuously test air around technician to be sure that CO levels do not rise to unsafe levels during testing	1/7/2011	Accepted	
27	Donald Prather	VA	2.2.1 Page 36	Recommend changing the wording in the Specifications Section to read: Furnace, heat pump and air conditioner fan will be set to operate at the highest design speed. Reason: In many applications the highest fan speed is not utilized for operating the equipment.	12/23/2010	Accepted	
28	Matt Redmond	NY	2.4.1	CO measurement should be taken at Steady State Efficiency, not after 5 minutes of operation.	1/7/2011	Accepted	
29	Matt Redmond	NY	2.4.2	Shared vented appliances must tested in conjunction to determine if the flue/chimney system has sufficient capacity to handle the total BTU input of all appliances firing.	1/7/2011	Accepted	
30	Joe Hall	CO	2.5.1	need to add Prior to dilution air.	1/7/2011	Accepted	
31	Frank Stanonik	VA	2.8.4	Also we recommend that CO alarms be provided in every home. The U. S. Consumer Product Safety Commission statistics on non-fire CO deaths associated with consumer appliances for the past several years show that 50% of such deaths are attributed to engine driven tools, particularly generators. Recognizing the other sources of CO that may be present in a home, all homes should have CO alarms.	1/7/2011	Accepted	
32	Charlotte Brody	VA	2.8.4	Replace the word "less" in "less than acceptable levels" with "under" or "below"	1/4/2011	Accepted	Adds clarity
33	Joe Hall	CO	2.9.4	repeat of 2.8.2 if need combine	1/7/2011	Accepted	
34	Joe Hall	CO	3.1.2	N-100	1/7/2011	Accepted	
35	Charlotte Brody	VA	3.1.7	Improperly used PPE including respirators do not belong under chemical safety. The intent of this language might be better expressed by stating that "Appropriate PPE must be provided and workers must be trained in how to use equipment properly and be expected to do so.	1/4/2011	Accepted	First part of this comment seems to be the result of a cut and paste error. The second part has been integrated into the Chemical Safety section of the Primary Worker Safety page.
36	Gary Crow	FL	3.10.1	I believe that many existing homes have clothes dryer ducting that exceeds the 35' of equivalent duct length that is specified in the IMC 2009 504. Should a DEDPV (Dryer Booster Fan) be considered for existing homes that require a duct run longer than the allowed 35' of equivalent duct?	1/5/2011	Accepted	
37	Gary Crow	FL	3.10.2	Who approves termination fittings for dryers? I could not find this requirement is ASHRAE Standard 62.2 2010. I believe that this is a requirement of IMC 2009 504.4	1/5/2011	Accepted	
38	Donald Prather	VA	3.10.4 Page 77	Specification should be changed to read: Testing to make sure that gas appliances are operating safely, combustion testing should be done by trained technicians utilizing the Original Equipment Manufacturers data, the National Fuel Gas Codes (NFPA) 54 2009 and the 2009 ICC International Fuel Gas Code (IFGC) and with guidance from ASTM E1998-02(2007). Reason: Prescriptive requirement description as written will not meet the objective.	12/23/2010	Accepted	
39	Donald Prather	VA	3.11.1 Page 78	Specifications section should be changed to say: Wiring will be installed by a contractor properly licensed contractor and will be installed in accordance with original equipment manufacturers specifications, and local and national electrical and mechanical codes. Reason: Many electricians know how to safely wire equipment for the load requirements but do not understand the directional requirements for mechanical equipment. In all jurisdictions HVAC contractors are licensed to connect their equipment to a power source.	12/23/2010	Accepted	Adds clarity and deals with an important potential problem
40	Donald Prather	VA	3.11.6 Page79	Specification should be changed to read: Testing to make sure that gas appliances are operating safely, combustion testing should be done by trained technicians utilizing the Original Equipment Manufacturers data, the National Fuel Gas Codes (NFPA) 54 2009 and the 2009 ICC International Fuel Gas Code (IFGC) and with guidance from ASTM E1998-02(2007). Reason: Prescriptive requirement description as written will not meet the objective.	12/23/2010	Accepted	
41	Gary Crow	FL	3.14.8	The 6" & 10' should be minimum distances. Section 3.15.6 states- Supply Intake Location states - "Minimum 18" above an asphalt- based or flat roof. Should this be for mechanical inlets only? What is the science behind the 10' minimum for mechanical inlets? The velocity at an inlet is minimal beyond the actual opening of the inlet. This makes it very unlikely for the inlet to draw contaminants from an exhaust termination.	1/5/2011	Accepted	Supply Ventilation 3.14.8

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42	Gary Crow	FL	3.15.6	Section 3.14.8 states - Supply Intake Location states - "Never on an asphalt- based or flat roof.	1/5/2011	Accepted	Duct for supply - 3.15.8
43	Donald Prather	VA	3.16.2 Page 89	Specifications section should be changed to say: Wiring will be installed by a contractor properly licensed contractor and will be installed in accordance with original equipment manufacturers specifications, and local and national electrical and mechanical codes. Reason: Many electricians know how to safely wire equipment for the load requirements but do not understand the directional requirements for mechanical equipment. In all jurisdictions HVAC contractors are licensed to connect their equipment to a power source.	12/23/2010	Accepted	Adds clarity and deals with an important potential problem
44	Gary Crow	FL	3.16.5	With the requirement of a MERV 11 filter other means of preventing unwanted flow are possible. We should not limit the use of innovative solutions. The following should be added -- Other design methods may be used when approved by a licensed design professional.	1/5/2011	Accepted	Intake to forced air system - 3.16.5
45	Donald Prather	VA	3.16.5 Page 90	3.16.5 Should be deleted Reason: Prescriptive statement currently in place restricts design options and will rule out other viable options such as spring or pneumatically operated dampers if mechanical codes are followed in previous steps the requirement is redundant.	12/23/2010	Accepted	
46	Donald Prather	VA	3.17.1 Page 92	Specifications section should be changed to say: Wiring will be installed by a properly licensed contractor and will be installed in accordance with original equipment manufacturers specifications, and local and national electrical and mechanical codes. Reason: Many electricians know how to safely wire equipment for the load requirements but do not understand the directional requirements for mechanical equipment. In all jurisdictions HVAC contractors are licensed to connect their equipment to a power source.	12/23/2010	Accepted	Adds clarity and deals with an important potential problem
47	Donald Prather	VA	3.17.2 Page 92	3.17.2 Should be deleted Reason: The position of a switch has nothing to do with the stated objective: Achieve designed airflow	12/23/2010	Accepted	
48	Gary Crow	FL	3.17.3	Fan should be oriented to minimize duct length and elbows.	1/5/2011	Accepted	Inline or Multi Port - 3.17.3
49	Gary Crow	FL	3.19.4	Infiltration credits should not be allowed. Mechanical ventilation should provide all of the required/necessary ventilation. In exhaust only systems why would you allow "fresh" outdoor air to come through uncontrolled openings in the walls, floor and/or ceilings? Why would you allow this fresh air to pass through insulation and other building materials before it reached the occupants? Infiltration is not constant from day to day or from season to season. Why is no infiltration acceptable during certain periods? The assumption that mechanical ventilation is additive to infiltration is incorrect.	1/5/2011	Accepted	
50	Gary Crow	FL	3.2.1	Remote mount fans are designed & rated for higher Ps than ceiling mount fans. There is no reason to limit the use of flex duct on remote mount fans. 2' of insulated flex duct is typically not sufficient to maximize sound reduction between the inlet/outlet device and a remote mount fan. A minimum of 8' of insulated flex duct is recommended for sound reduction. What is increasing the duct size by 50% an alternative to?	1/5/2011	Accepted	Ducts - 3.2.1 - not fully incorporated, but our change now clears up the alternative question and allows for flexible duct within the standard.
51	Gary Crow	FL	3.2.1	Remote mount fans are designed & rated for higher Ps than ceiling mount fans. There is no reason to limit the use of flex duct on remote mount fans. 2' of insulated flex duct is typically not sufficient to maximize sound reduction between the inlet/outlet device and a remote mount fan. A minimum of 8' of insulated flex duct is recommended for sound reduction. What is increasing the duct size by 50% an alternative to?	1/5/2011	Accepted	Redundant comment
52	Gary Crow	FL	3.21.1	I believe that the 1st two bullet points should read as follows: Run fan continuously and/or Run fan intermittently.....for intermittent operation	1/5/2011	Accepted	controls - 3.21.1
53	Gary Crow	FL	3.21.2	Local mechanical exhaust (Spot Fan) should be allowed to be either continuous operation or intermittent operation. Both of these types of systems should allow operation as needed by the occupant (ASHRAE 62.2 2010 5.2 & 5.3.1). Additionally, automatic controls such as occupancy sensors and IAQ sensors should be allowed (ASHRAE 62.2 2010 5.2.1).	1/5/2011	Accepted	controls - 3.21.1 - automatic controls were not addressed since the detail does not
54	Donald Prather	VA	3.21.3 Page 102	Specifications section should be changed to say: Wiring will be installed by a contractor properly licensed contractor and will be installed in accordance with original equipment manufacturers specifications, and local and national electrical and mechanical codes. Reason: Many electricians know how to safely wire equipment for the load requirements but do not understand the directional requirements for mechanical equipment. In all jurisdictions HVAC contractors are licensed to connect their equipment to a power source.	12/23/2010	Accepted	Adds clarity and deals with an important potential problem
55	Donald Prather	VA	3.22.1 Page 103	Specifications section should be changed to say: Wiring will be installed by a contractor properly licensed contractor and will be installed in accordance with original equipment manufacturers specifications, and local and national electrical and mechanical codes. Reason: Many electricians know how to safely wire equipment for the load requirements but do not understand the directional requirements for mechanical equipment. In all jurisdictions HVAC contractors are licensed to connect their equipment to a power source.	12/23/2010	Accepted	Adds clarity and deals with an important potential problem
56	Gary Crow	FL	3.22.3	Most ERVs are not provided with a drain pan and typically do not require a drain pan.	1/5/2011	Accepted	Heat Recovery Ventilation and Energy Recovery Ventilation - 3.22.3
57	Shelley Kawamura	CO	3.23.4	Consumer should be educated about the potential for mold growth if dehumidification drainage system fails. Educate occupant to check periodically	1/7/2011	Accepted	Dehumidification - 3.23.5
58	Gary Crow	FL	3.25.1	Why do "very cold" regions require a filter box?	1/5/2011	Accepted	Just changed the wording
59	Judy Roberson	CA	3.3.6	This document should be much more careful when specifying the location of vent terminations (and probably other dimensions). As written, it specifies one distance (3' or 10') when the intent - and communication - should clarify that these are minimum distances. The language should read "AT LEAST ..."	12/22/2010	Accepted	Terminators - 3.3.6
60	Gary Crow	FL	3.3.6	These three items should all be minimum distances. What is the definition of a "mechanical inlet"? ASHRAE 62.2 defines "mechanical ventilation" as by powered equipment such as motor-driven fans & blowers. Would a mechanical inlet be an inlet connected to powered equipment such as motor-driven fans & blowers? What is the science behind the 10' minimum for mechanical inlets? The velocity at an inlet is minimal beyond the actual opening of the inlet. This makes it very unlikely for the inlet to draw contaminants from an exhaust termination.	1/5/2011	Accepted	Terminators - 3.3.6
61	Gary Crow	FL	3.4.3	A Local Mechanical Exhaust System shall be installed in each kitchen and bathroom (ASHRAE 62.2 2010 5.1). If a Primary Whole House Exhaust System is the only exhaust system being utilized, it must have inlet grilles in each kitchen and bathroom and meet the minimum exhaust rates that are listed in section 3.19 of this document.	1/5/2011	Accepted	Exhaust grille location. Removed 3.4.3 and modified wording of 3.4.1
62	Donald Prather	VA	3.5.2 Page 66	Specifications section should be changed to say: Wiring will be installed by a contractor properly licensed contractor and will be installed in accordance with original equipment manufacturers specifications, and local and national electrical and mechanical codes. Reason: Many electricians know how to safely wire equipment for the load requirements but do not understand the directional requirements for mechanical equipment. In all jurisdictions HVAC contractors are licensed to connect their equipment to a power source.	12/23/2010	Accepted	Adds clarity and deals with an important potential problem
63	Donald Prather	VA	3.5.7 Page 67	Specifications Section should read: Airflow in CFM will meet design requirements Reason: System intent not as specific Note recommended references: Manual J8 Residential Load Calculation, 8th ed., 2006 and ANSI/ACCA 5 -- 2010 QI HVAC Quality Installation Specification	12/23/2010	Accepted	Surface mounted ducted - 3.5.7
64	Donald Prather	VA	3.5.8 Page 67	3.5.8 Should be deleted Reason: The current statement, as is, is not a procedure or a specification and is not directly related to exhaust fans	12/23/2010	Accepted	
65	Donald Prather	VA	3.5.9 Page 67	3.5.9 Should be deleted Reason: The current statement, as is, is not a procedure or a specification and is not directly related to exhaust fans	12/23/2010	Accepted	

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66	Donald Prather	VA	3.6.1 Page 68	Specifications section should be changed to say: Wiring will be installed by a contractor properly licensed contractor and will be installed in accordance with original equipment manufacturers specifications, and local and national electrical and mechanical codes. Reason: Many electricians know how to safely wire equipment for the load requirements but do not understand the directional requirements for mechanical equipment. In all jurisdictions HVAC contractors are licensed to connect their equipment to a power source.	12/23/2010	Accepted	Adds clarity and deals with an important potential problem
67	Gary Crow	FL	3.6.3	Fan should be oriented to minimize duct length and elbows. Noise can be minimized by using insulated flex duct.	1/5/2011	Accepted	Ventilation Section - Each detail referencing fan mounting
68	Gary Crow	FL	3.6.4	I could not find this requirement is ASHRAE Standard 62.2 2010	1/5/2011	Accepted	Inline - 3.6.4 - Removed ASHRAE Reference
69	Donald Prather	VA	3.6.7 Page 69	Specifications Section should read: Airflow in CFM will meet design requirements Reason: System intent not as specific Note recommended references: Manual J8 Residential Load Calculation, 8th ed., 2006 and ANSI/ACCA 5 -- 2010 QI HVAC Quality Installation Specification 3.6.8 Should be deleted	12/23/2010	Accepted	Ventilation Section - Each detail referencing air flow
70	Donald Prather	VA	3.6.8 Page 67	Reason: The current statement, as is, is not a procedure or a specification and is not directly related to exhaust fans 3.6.9 Should be deleted	12/23/2010	Accepted	
71	Donald Prather	VA	3.6.9 Page 67	Reason: The current statement, as is, is not a procedure or a specification and is not directly related to exhaust fans 3.7.8 Should be deleted	12/23/2010	Accepted	wording changed
72	Donald Prather	VA	3.7.8 Page 71	Reason: The current statement, as is, is not a procedure or a specification and is not directly related to exhaust fans 3.7.9 Should be deleted	12/23/2010	Accepted	
73	Donald Prather	VA	3.7.9 Page 71	Reason: The current statement, as is, is not a procedure or a specification and is not directly related to exhaust fans	12/23/2010	Accepted	
74	Donald Prather	VA	3.8.1 Page 72	Specifications section should be changed to say: Wiring will be installed by a contractor properly licensed contractor and will be installed in accordance with original equipment manufacturers specifications, and local and national electrical and mechanical codes. Reason: Many electricians know how to safely wire equipment for the load requirements but do not understand the directional requirements for mechanical equipment. In all jurisdictions HVAC contractors are licensed to connect their equipment to a power source.	12/23/2010	Accepted	Adds clarity and deals with an important potential problem
75	Donald Prather	VA	3.8.10 Page 74	Reason: The current statement, as is, is not a procedure or a specification and is not directly related to exhaust fans 3.8.11 Should be deleted	12/23/2010	Accepted	
76	Donald Prather	VA	3.8.11 Page 74	Reason: The current statement, as is, is not a procedure or a specification and is not directly related to exhaust fans	12/23/2010	Accepted	
77	Gary Crow	FL	3.8.2	Should there be a method described to verify airflow after installation? This should be considered throughout the Ventilation section. Fan should be oriented to minimize duct length and elbows.	1/5/2011	Accepted	
78	Gary Crow	FL	3.8.3	Noise can be minimized by using insulated flex duct.	1/5/2011	Accepted	Ventilation - each detail referencing fan mounting
79	Donald Prather	VA	3.8.9 Page 74	Specifications Section should read: Airflow in CFM will meet design requirements Reason: System intent not as specific Note recommended references: Manual J8 Residential Load Calculation, 8th ed., 2006 and ANSI/ACCA 5 -- 2010 QI HVAC Quality Installation Specification 3.9.3 Should be deleted	12/23/2010	Accepted	Ventilation Section - Each detail referencing air flow
80	Donald Prather	VA	3.9.3 Page 74	Reason: The current statement, as is, is not a procedure or a specification and is not directly related to exhaust fans and desired outcome not guaranteed.	12/23/2010	Accepted	
81	Charlotte Brody	VA	4.1.7	Abiding by the information on MSDS sheets will not keep workers safe or provide residents with healthy material selection. The language is better in other sections.	1/4/2011	Accepted	Eliminated here; changed language in universal worker safety page
82	Shelley Kawamura	CO	4.1.7	Should include verbiage about working with spray foams that contain isocyanates -- need to stress appropriate respiratory and skin protection	1/7/2011	Accepted	redundant here. Dealt with in 4.1.2
83	Charlotte Brody	VA	4.18.3	Id the aesthetics of visible sealants gets its own bullet point, so should the relative toxicity of different sealants.	1/4/2011	Accepted	Sensible addition
84	Simone Lindenbaum	AL	4.27.3	1. The 3rd and 4th paragraph are incomplete.	1/6/2011	Accepted	Windows and doors - replacement - 4.27.3
85	Robert De Vries	MI	4.4.4	There should be no materials other than a sealant in contact with a chimney or flue. This section implies that it is okay to insulate around a heat-producing device as long as a non combustible material is used. In most cases an air gap from one to three inches is required.	12/2/2010	Accepted	
86	Jim Melesky	PA	4.8.2	The wording specifies materials and may be interpreted to exclude the use of a pre-fab kit. The insulation should be equivalent to the rest of the attic, e.g ranging from R-30 to R-49 depending on the zone. Also, since some attics are not floored, there should be a requirement for a protective baffle or barrier to prevent loose insulation from falling into the living space. The above are included in the 2009 IECC Chapter 4. Finally, the measure should be lightweight and easy for the occupant to use on an ongoing basis. I have observed measures that are heavy and/or cumbersome. With such measures, the occupant will not use the measure over time, thereby providing a limited realistic energy saving. Emphasis should be placed on providing measures that the occupant will readily embrace.	1/4/2011	Accepted	
87	Jim Melesky	PA	4.8.4	The existing wording is limiting and may exclude pre-fab kits that meet the insulating and air sealing requirements and not be in need of any specific support material.	1/4/2011	Accepted	
88	Tolle Graham	MA	5.1.4	delete - long sleeves/pants and add disposable protective clothing	1/7/2011	Accepted	Incorporated disposables in addition to long sleeve/long pants. Either will work in this situation

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89	Frank Stanonik	VA	5.14.1	This specification is unclear. Installers do not add information to appliance name plates or rating plates. There is no spare room on these plates for information to be added in the field. What information is the subject of this specification and who is expected to record it?	1/7/2011	Accepted	Data plate verification - 5.16.1 - changed wording
90	Simone Lindenbaum	AL	5.16.1	Change Verbiage: "Nozzle size will be correct for design input and within equipment firing rate of the heating system manufacturer."	1/6/2011	Accepted	Combustion analysis - 5.16.1
91	Simone Lindenbaum	AL	5.2.3	recommend that interior design conditions be selected based on industry standards (customarily 70 degrees for heating and 75 degrees for cooling). Allowing customer occupant preference to determine the interior design condition may result in over sizing or under sizing equipment.	1/6/2011	Accepted	Load calculation and equipment selection - incorporated throughout detail
92	Simone Lindenbaum	AL	5.21.5	Include: "Importance of cleaning dust and debris from cold air returns grilles will be explained."	1/6/2011	Accepted	Commissioning of equipment - 5.21.5
93	Simone Lindenbaum	AL	5.21.9	Include: "the labor warranty will be explained and the occupant will be given a phone number to call for warranty service".	1/6/2011	Accepted	Commissioning of equipment - 5.21.9
94	Dave Swett	NE	5.3.1	Assigning a standard friction rate for sizing supply and return duct assumes that the total effective length from one duct system to the next is the same. 0.08 IWC on the supply side and 0.06 IWC on the return side will result in undersizing of the air distribution system in many cases. Air distribution systems should be designed based on net available static pressure capacity of the fan and then adjusted for design friction rate based on total effective length of the longest supply and return. Specification should say: Supply Diffusers shall be selected based on ACCA Manual T Air distribution basics, OEM design values and ASHRAE guidance.	12/17/2010	Accepted	5.3.1 - Listed standard conflicts with ASHRAE
95	Donald Prather	VA	5.3.7 Page 189	Reason: Reason: Prescriptive statement currently in place will not accomplish the objective.	12/23/2010	Accepted	Ductwork and termination design - 5.3.7
96	Jeremy King C.E.M.	VT	5.32.2	The specification of minimum R8 for flex duct located outside the thermal envelope is grossly inadequate. Ductwork should be insulated to the same R value required for other similar areas of the thermal envelope. If R49 is required for attic insulation then ductwork located in the attic should be insulated to at least R49, etc. The air in the ductwork has a higher energy intensity than does air directly under the ceiling beneath the attic as it is operating at higher pressures, moving, and has a greater deltas T and thus transfers more energy to the attic. When the air -handler is not in operation the ductwork is filled with conditioned air from inside the building and acts as would any other attic (or corresponding surface). Allowing hundreds of square feet of R8 surface in an attic or other area outside the thermal envelope is not acceptable. Attempting to upgrade the ductwork insulation as a retrofit measure is typically difficult and much more expensive than is designing to keep the ductwork inside the thermal envelope or designing such that the ductwork can be buried in the attic insulation Cite ANSI/ACCA Manual D Residential Duct Systems, 2009	1/5/2011	Accepted	Manual D is the standard document used for residential duct sizing. It seems appropriate to cite it here.
97	Donald Prather	VA	5.32.3 Page 244	Reason: Manual D is the standard used by most local jurisdictions for residential duct design Also cite ANSI/ACCA 5 -- 2010 QI HVAC Quality Installation Specification and ANSI/ACCA Manual S Residential Equipment Selection	12/23/2010	Accepted	This is a reasonable suggestion, as long as these documents are portrayed as resources for additional information.
98	Donald Prather	VA	5.34.2 Page 248	Reason: Gives the contractor direction for the information to use in educating the customer	12/23/2010	Accepted	Space load calculation - heating emitter size - 5.35.1
99	Frank Stanonik	VA	5.35.1	The specification for calculating the space load should recognize the Heat Loss Calculation Guide No. H-22 from AHRI's Hydronics Institute Section.	1/7/2011	Accepted	Boiler replacement - 5.37.1
100	Frank Stanonik	VA	5.37.1	The specification in row 1 should simply be "Signs of water leakage from the boiler." What difference does it make whether it is in the Combustion Appliance Zone or not?	1/7/2011	Accepted	Boiler replacement - 5.37.2
101	Frank Stanonik	VA	5.37.2	The specification for calculating the heating load should recognize the Heat Loss Calculation Guide No. H-22 from AHRI's Hydronics Institute Section. Also cite ANSI/ACCA 5 -- 2010 QI HVAC Quality Installation Specification and ANSI/ACCA Manual S Residential Equipment Selection	1/7/2011	Accepted	This is a reasonable suggestion, as long as these documents are portrayed as resources for additional information.
102	Donald Prather	VA	5.37.3 Page 251	Reason: Gives the contractor direction for the information to use in educating the customer	12/23/2010	Accepted	Boiler replacement - gas and oil - 5.37.8
103	Roger Mitchell	ME	5.37.8	The wording of Micro-bubble air separator should be changed to include standard air elimination fittings most existing systems use the standard fittings.		Accepted	Boiler replacement - gas and oil - 5.37.9
104	Roger Mitchell	ME	5.37.9	The bladder expansion tank should be installed with the system fill valve at the air eliminator fitting. The circulator should be installed to pump away from the expansion tank. Replacement systems should be allowed to leave the circulator on the return so long as there are no air elimination problems		Accepted	Need to find and insert EPA mercury guidance reference.
105	Charlotte Brody	VA	5.38.4	This section needs to be rewritten to reflect the dangers of mercury exposure to the worker removing the mercury-containing equipment. Also cite ANSI/ACCA 5 -- 2010 QI HVAC Quality Installation Specification and ANSI/ACCA Manual S Residential Equipment Selection	1/4/2011	Accepted	This is a reasonable suggestion, as long as these documents are portrayed as resources for additional information.
106	Donald Prather	VA	5.38.5 Page 255	Reason: Gives the contractor direction for the information to use in educating the customer	12/23/2010	Accepted	checklist - 5.40.7
107	Simone Lindenbaum	AL	5.40.7	Include: "Where the boiler water line is not visible, due to dirt or sediment, the sight glass will be removed for cleaning."	1/6/2011	Accepted	checklist - 5.40.8
108	Simone Lindenbaum	AL	5.40.8	Include: "Any steam boiler that is not fitted with a built in blow down valve shall have one added".	1/6/2011	Accepted	Fuel delivery system for fuel oil - 5.5.3
109	Simone Lindenbaum	AL	5.5.2	"Oil filter insert will be replaced or a new filter installed whenever an oil system is serviced or replaced."	1/6/2011	Accepted	Setting the air handler - 5.7.9
110	Frank Stanonik	VA	5.7.9	This is not clear. Is it intended to apply only to installations in attics or both installations in attics and in conditioned space? Specifications should have the prescriptive statement: Measured airflow per ton will be within 15% of Manufacturers specifications should be removed.	1/7/2011	Accepted	Duct system - 5.8.13
111	Donald Prather	VA	5.8.13	Reason: ANSI/ACCA 5 -- 2010 QI HVAC Quality Installation Specification and ASHRAE standards require the equipment to be set up to operate within the OEM's specified required ranges. The prescriptive 15% might result in equipment not being within the OEM's required ranges.	12/23/2010	Accepted	typo
112	Charlotte Brody	VA	5.8.8	fasitng should be fastening	1/4/2011	Accepted	Duct system - 5.8.9 - partially incorporated by adding to objectives column
113	Simone Lindenbaum	AL	5.8.9	Include: "Supply registers will be connected to register boots so that all of the supply air is delivered through the connected register" (to avoid conditioned air leaking through unconditioned spaces).	1/6/2011	Accepted	Heating and Cooling Controls - 5.9.1
114	Jim Urtz	CT	5.9.1	suggest adding the words "disposed of" between the word "and" and the word "in"	1/7/2011	Accepted	

ID	Name	State	Section	Comment	Date	Status	Response
115	Robert Clunie, P.E.	ME	6 & 7	<p>Spray Polyurethane Foam (SPF closed cell spray foam), open cell spray foam, and Tripolymer wall injection foams are a high-performance insulations and air-sealing technology. While traditional fibrous insulations, such as cellulose and fiberglass, were included in Section 6 and 7, however, SPF, open cell foam, and Tripolymer wall foam were not included in the current document. Closed cell foam, open cell foam, and Tripolymer foam insulations provide unique and superior solutions for residential retrofit applications, such as:</p> <ul style="list-style-type: none"> * creating unvented/conditioned attics and crawlspaces * insulating and air sealing exposed ductwork, rim/band joists and exposed floors in the interior of homes * insulating low-slope roofs and walls on the exterior of homes * providing moisture control and improved structural performance (closed-cell SPF & open cell foam at appropriate thicknesses)) <p>Please further note that Tripolymer injection foam, for example, provides an air seal to existing walls by injecting foam into wall cavities from either the exterior or from the interior of existing homes. Accordingly, this process is very well suited for retrofitting and insulating older homes.</p> <p>We believe that SPF insulation, both closed and open cell, and Tripolymer injection foam must be included in the final document.</p>	1/7/2011	Accepted	Rick Duncan has developed a group to add spray polyurethane foam to this document.
116	Matt Redmond	NY	6.1.6	All electrical tools need the brush holders removed and the motor vent spaces cleaned out with compressed air. Replace brushes as needed.	1/7/2011	Accepted	
117	Jim Urtz	CT	6.15.12	specification and objective refer to dense pack, but the section is about installing batt insulation in attic floors. Suggest deleting or revising.	1/7/2011	Accepted	Batt installation - attic floors - removed line 6.15.2
118	Jim Urtz	CT	6.16 and 6.17	suggest adding "verify that dams or enclosures have been correctly installed as required" or similar language to Preparation sections.	1/7/2011	Accepted	Loose fill installation and loose fill over existing insulation - 6.16.1 and 6.17.1
119	Jim Urtz	CT	6.16.1	requires the use of "insulation rulers". Suggest changing wording to "Attic will be adequately marked in such a way that the insulation will be installed at a uniform depth throughout the attic" or similar.	1/7/2011	Accepted	insulation chapter - throughout the chapter
120	roberto casini	DE	6.17.5 page 150	<p>NO specific mention of fire resistance requirement for materials used in conjunction with hot recessed lights. According with the current version flammable materials such as cardboard and plastic can be used as a closure around hot light fixtures, creating an obvious fire hazard.</p> <p>Conduction is not an effective method of heat dispersion especially if the cover is air sealed since the still air within the enclosure acts as a very good insulator. Tests show that any kind of air tight enclosure, even made out of non-insulating material with an R-value below 0.5 will cause the light to overheat. The only effective way of preventing thermal overload of the lamp is by using energy efficient bulbs such as compact fluorescent. Energy efficient lamps run cooler therefore can be buried with insulation if properly protected by a cover made out of high temperature resistant material.</p>	1/3/2011	Accepted	Only partly incorporated. Just the fire rated material was incorporated. Experience from the field does not agree that air sealing the top will cause thermal overload
121	Rupert Coggon	DE	6.2.1	The air barrier system needs to be constructed from a fire resistant material to prevent the barrier itself from becoming the source of a fire	1/6/2011	Accepted	
122	roberto casini	DE	6.2.1 page 276	<p>The Insulation Contact (IC) standard has been developed before the introduction of expanding spray foam insulation. Spray foam has created new unexpected challenges because the highly flammable and viscous chemicals penetrate the smallest gaps. Even the manufacturers themselves strongly recommend to protect IC rated cans with a fire resistant closure before applying any kind of foam. Simply replacing non-IC rated light fixtures with IC rated light fixtures does not effectively address all potential safety hazards.</p> <p>An advisable safety methodology is to install a fire resistant barrier to keep insulation from getting in contact with non-IC rated, as well as IC rated light fixtures.</p>	1/3/2011	Accepted	
123	roberto casini	DE	6.2.3 page 276	<p>The protective cover should be kept 3" away from the heat source (lamp) not the wiring box.</p> <p>The common joist spacing for single family homes is 16" on center. The majority of recessed light fixtures have the wiring box separated from the can therefore the distance between wiring box and wood joists is less than 3".</p> <p>Wiring boxes and ballasts run at safe temperatures therefore there is no need to keep them at distance from the high temperature resistant protective enclosure.</p>	1/3/2011	Accepted	
124	Jim Urtz	CT	6.21 and 6.22	dealing with attic access. For installation section, suggest stating "Build an enclosure that will be higher than the level of any insulation that will be blown in, is durable, allows the attachment of insulation, and has a tight fitting, removable top" or similar.	1/7/2011	Accepted	Attic access - 6.21.1 and 6.22.1
125	Jim Melesky	PA	6.21.1	There should be a requirement for any measure to be lightweight and easy to use. For the weight aspect, I suggest a weight that is reasonable for all ages to use such as 12-15 lb. While easy to use may be somewhat subjective, it is clear that cumbersome measures will not be used by occupants over time. If the easy to use wording is included, it will provide an incentive for contractors and manufacturers to compete for better solutions for the occupants.	1/4/2011	Accepted	
126	Jim Melesky	PA	6.21.1	<p>The insulation should be non compressible per 2009 IECC section 402.2.3.</p> <p>In addition, the measure should include a protective baffle per section 402.2.3 to prevent loose insulation from spilling into the living space. Many attics with pull down stairs do not have flooring. Those with flooring may later install more insulation over the flooring or remove the flooring. By including the protective baffle requirement, it will allow for a long term solution.</p>	1/4/2011	Accepted	
127	Joseph Fox	NY	6.21.1	<p>Section 402.2.3 2009 IECC</p> <p>Insulation must be non compressible material and must include durable protective baffle mad eof anon compressible material</p>	12/16/2010	Accepted	
128	Matt Redmond	NY	6.21.2	In the NE more than weatherstripping is necessary. You can install an attic tent or you can build your own enclosure,insulating the top and sides.	1/7/2011	Accepted	Attic access - 6.21.1 and 6.22.1
129	Jim Melesky	PA	6.21.2	The term "weatherstripping" is a single acceptable method to air seal. It precludes other effective measures used in the Wx market today such as frictionally engaged components. I suggest that the wording be changed to air sealed and refer to the various alternatives set forth in the 2009 IECC section402.4.1.	1/4/2011	Accepted	
130	Joseph Fox	NY	6.21.2	Section 402.4.1 2009 IECC AREA should caulked,gasketed, weather stripped, or otherwise sealed with an air barrier material, suitable film or solid material.	12/16/2010	Accepted	

ID	Name	State	Section	Comment	Date	Status	Response
131	Jim Melesky	PA	6.21.3	What good is a measure if the materials last 20 years, but the measure does not? I recommend that the entire measure be required to meet a minimum expected service life of 20 years. For contractors and manufacturers of kits, they should be required to warrant the measure for the 20 years.	1/4/2011	Accepted	
132		PA	6.21.4	Purpose of insulation, protective baffle and air seal should be explained to occupant. Objective: Educate occupant on how to use the hatch and measure to ensure integrity of the entire assembly throughout service life	11/30/2010	Accepted	Attic access - 6.21.4 and 6.22.4
133	Dennis L. Gordon	NC	6.21.4	The purpose of the insulation, protective baffle and air seal will be communicated to the occupant.	12/10/2010	Accepted	Attic access - 6.21.4 and 6.22.4
134	Jim Melesky	PA	6.21.4	The purpose of the entire measure- insulation, air seal, protective barrier should be communicated to occupant. For example, if only the insulation purpose is explained, the occupant might not think it is important to properly establish the air seal for prevention of convective heat transfer.	1/4/2011	Accepted	
135		PA	6.22.1	Installation: The area above the access hatch will be insulated to the same R-Value as adjoining insulated assembly with non compressible insulation. The measure must also include a durable protective baffle for horizontal hatches made of non compressible material. Objective: Achieve uniform R-Value and provide a protective barrier to prevent loose insulation from entering the living area.	11/30/2010	Accepted	Attic access - 6.21.4 and 6.22.4
136	Jim Melesky	PA	6.22.1	Hatches need to be insulated with non compressible insulation and the measure must include a protective barrier or baffle. This is set forth in the 2009 IECC section 402.2.3 and reveals the importance of this.	1/4/2011	Accepted	
137	Dennis L. Gordon	NC	6.22.1	The hatches will be insulated to the same R-value to the adjoining insulating assembly with non compressible insulation and measure must include a protective baffle for horizontal hatches.	12/10/2010	Accepted	
138	Greg Nettleton	WI	6.22.2	Access hatch frames will be air sealed continuously weather stripped. The framing often leaks air behind the weather stripping. This standard should also include air sealing of gaps and voids present in framing assembly at attic access hatch and at attic hatch trim. The gaps and voids present at framing and trim can be more substantial than those found at the attic panel itself and air sealing of these gaps and penetrations will result in a more durable seal.	1/7/2011	Accepted	Attic access - 6.21.4 and 6.22.4
139	Jim Melesky	PA	6.22.2	Weatherstripping is only one form of air sealing. This precludes other effective air sealing measures such as solid materials that have frictionally engaged components that have proven effective in the field for a period of years in thousands of homes. In addition, the measure must include a protective baffle or barrier per section 402.2.3. A latch or lock requirement will also preclude the use of other highly effective measures to prevent air leakage. The latch or lock wording should be removed and replaced with air sealing the hatch area.	1/4/2011	Accepted	
140	Jim Melesky	PA	6.22.3	Non compressible insulation should be attached either permanently to the access hatch or removably above the attic entrance in the attic Justification- The existing wording limits the installation of the insulation to only one acceptable measure and eliminates other measures including insulation installed above the attic entrance in the form of pre-fab kits or constructed measures. Since the 2009 editions of the International Residential Code and International Energy Conservation Code both require a protective baffle or barrier above the hatch in the attic, it is more efficient and effective to have a removable insulating component that either attaches or frictionally engages to a properly constructed protective baffle.		Accepted	
141	Jim Melesky	PA	6.22.3	This section precludes the use of highly effective measures to insulate and air seal the hatch opening. These alternatives include measures that are installed on the top of the flooring or floor joists with sections that are installed between the floor joists. See www.essng.com Included on the web page are endorsements from many esteemed Wx experts who attest to the effectiveness of this technology. This section should be removed as the insulation is addressed in section 6.22.1. How it is insulated should be left to competition for the best ideas and concepts in the marketplace.	1/4/2011	Accepted	
142		PA	6.22.3	Non compressible insulation must be installed above the access hatch either on the attic floor joists or permanently attached in complete contact with the access hatch. Objective: Insulate to prescribed R-Value using all effective options.	11/30/2010	Accepted	
143	Joseph Fox	NY	6.22.3	Per Section 402.2.3 of 2009 IECC insulation must be non compressible. Non compressible insulation can be secured above the opening in the attic on the floor joist or in contact with the access hatch.	12/16/2010	Accepted	
144	Jim Melesky	PA	6.22.4	The completed measure should meet a minimum expected service life of 20 years. This is essential to providing reliable energy saving projections. The contractor who individually constructs measures and the manufacturers of pre-fab kits should be required to warrant the completed measure. Otherwise, slip shod measures will continue in the marketplace.	1/4/2011	Accepted	Attic access - 6.21.4 and 6.22.4
145		PA	6.22.4	Specification: The completed measure will meet a minimum expected service life of 20 years. Objective: Ensure a minimum expected service life of the completed kit or measure.	11/30/2010	Accepted	Attic access - 6.21.4 and 6.22.4
146		PA	6.22.4	The completed and installed measure will meet a minimum expected service life of 20 years. Objective: Ensure a minimum expected service life of the completed and installed measure.	11/30/2010	Accepted	Attic access - 6.21.4 and 6.22.4
147	Joseph Fox	NY	6.22.4	The completed measure will meet a minimum expected life of 20 years.	12/16/2010	Accepted	Attic access - 6.21.4 and 6.22.4
148	Jim Melesky	PA	6.22.5	The insulation addresses the loss of energy by conductive heat transfer. The air sealing must also be explained as it prevents the convective heat transfer and elimination of uncomfortable drafts caused by air leaks.	1/4/2011	Accepted	Attic access - 6.21.4 and 6.22.4
149		PA	6.22.5	Specification: Purpose of insulation, protective baffle and air seal will be communicated to occupant. Objective: Educate occupant on how to use the hatch to ensure integrity of the entire assembly throughout the service life	11/30/2010	Accepted	Attic access - 6.21.4 and 6.22.4
150	Joseph Fox	NY	6.22.5	Insulation, protective baffle, and air sealing will be communicated to occupant.	12/16/2010	Accepted	Attic access - 6.21.4 and 6.22.4
151	Jim Urtz	CT	6.24.4	Suggest changing statement "Baffling for attic vents..." to "Baffling for soffit vents..."	1/7/2011	Accepted	Attics General - Ventilation - 6.24.4
152	Gina Crist	CT	6.28.1	Specifications: Injection foam insulation should be included and not limited to just cellulose and fiberglass. In many instances, where there is existing yet underperforming insulation in the walls, injection foam is the best upgrade and will improve insulation R values. Dense packing cellulose is impossible in this situation which is rather common in US homes.	1/4/2011	Accepted	Rick Duncan has developed a group to add spray polyurethane foam to this document.
153	Mark Harris	CT	6.28.1	Specifications: Should include injection foam insulation and not be limited to Cellulose & Fiberglass. Reasoning: Injection foam has been used to retrofit homes throughout the US for years. In homes that already have fiberglass blown or batt insulation, dense packing is virtually impossible. In these situations, injection foam is the best upgrade to improve insulation R values and reduce air infiltration.	1/7/2011	Accepted	Rick Duncan has developed a group to add spray polyurethane foam to this document.
154	Jim Urtz	CT	6.31.5	-- Suggest that examples of acceptable materials for plugging/sealing dense pack application holes be added. Also, suggest changing "Interior holes will be rough coated and patched" to "Interior holes will be patched and finished to a degree that matches"	1/7/2011	Accepted	Partially incorporated Additional exterior wall cavities - 6.31.5 - Did not incorporate fill products, since SWs attempt to be non-product specific
155	Donald Prather	VA	7.12.8 Page 347	Delete 7.12.8 Specifications Reason: Specifications section is unclear as to intent, how can the site be prepared for a retrofit after the change out is completed? Cite ANSI/ACCA 5 -- 2010 QI HVAC Quality Installation Specification, 2010	12/23/2010	Accepted	Wording was change. Appliances and HVAC system repairs or change outs will be completed before retrofitting the structure (air sealing, insulation, etc.)

ID	Name	State	Section	Comment	Date	Status	Response
156	Greg Nettleton	WI	7.15.2	This may be a regional concern, and may not be applicable for all regions, soil conditions or climates. Moisture content testing in cold climate upper Midwest crawlspaces has shown no evidence of widespread or frequently encountered moisture concerns present in crawlspace wood framing. Where moist conditions are observed in a crawlspace, this supplemental moisture audit could be included. Limiting this practice to an as applicable basis will reduce time/cost involved in testing where not necessary. A combination of customer interview, external survey and internal inventory of conditions present will prompt when this additional testing needs to be performed.	1/7/2011	Accepted	
157	Donald Prather	VA	7.2.2 Page 333	Specifications add the wording: where remaining existing system ventilation will not be affected Reason: The prescriptive requirement may not be possible in multi-family housing due to venting design changes required to non related units as a result of the forced upgrade. Strongly recommend making it a suggested best practice and not a requirement since it is somewhat impossible to actually do.	12/23/2010	Accepted	
158	Matthew Hansen	MI	7.27.7	Footnote 62 refers to ASTM C1320-05(2009)e1 "Standard Practice for Installation of Mineral Fiber Batt and Blanket Thermal Insulation for Light Frame Construction" which only applies to mineral fiber insulation. This excludes entire product line options such as rigid foam insulation. Rigid foam is used broadly throughout the industry for insulation and energy upgrades. Any reference to ASTM C1320-05(2009)e1 should also reference ASTM C578 and C1289.	1/7/2011	Accepted	Although the reviewer does not offer alternative language, the spirit of the objection is reasonable.
159	Shelley Kawamura	CO	7.33.5	Include recommendations for proper maintenance of dehumidification systems	1/7/2011	Accepted	dehumidifier 7.33.6 - added occupant education line
160	Tolle Graham	MA	7.8.1	add OSHA reference on green jobs section; know literacy level and languages of workers before delivering written material	1/7/2011	Accepted	Incorporated reference to literacy level and language. Don't know what "add OSHA reference on green jobs section" means.
161	Charlotte Brody	VA	8.1.7	need a comma between mercury and fibers Under Specifications, change wording to...	1/4/2011	Accepted	Incorpoated in Universal Worker Safety section
162	Keith Burkhardt	KY	8.11.2	The water heater will be selected based on performance requirements of the occupant, available fuel sources, energy efficiency, and total life cycle cost.	1/7/2011	Accepted	Water heater selection - 8.11.2
163	Roger Mitchell	ME	8.13.4	Emergency drain pan should be required if damage to the structure would occur if a leak developed on or at the storage tank. Tanks installed in a basement should not be required to have a drain pan		Accepted	Storage Type Appliance, 8.13.4
164	Greg Nettleton	WI	8.2.1	Definition of 'adequete' warranty needs further clarification.	1/7/2011	Accepted	Refrigerator and freezer replacement - 8.2.1
165	Mark Williams	CA	8.5.1	Doesn't really distinguish between active and passive daylighting. I think it only lists 'passive' options. It really doesn't address e.g. the problems created by south facing skylights. Proper orientation, glazing selection, etc. are important aspects of good daylighting. Yes it is a complex subject, but you shouldn't advocate poor design/product selection through the absence of some sort of guidelines.	1/5/2011	Accepted	Lighting 8.5.1 - Could not fully incorporate at this time, but modified wording
166	Greg Nettleton	WI	8.6.1	Definition of "adequete" warranty needs further clarification.	1/7/2011	Accepted	Washing machine - 8.6.1
167		PA	8.6.3	Replaced appliances will be recycled or REMOVED AND disposed of properly.	1/6/2011	Accepted	Washing machine - 8.6.1
168	Greg Nettleton	WI	8.7.2	Extent of warranty to be provided for dryers needs clarification.	1/7/2011	Accepted	Dryer - 8.7.1
169	Greg Nettleton	WI	8.9.1	Water bed replacement should be considered as a strictly optional improvement measure, with occupant left to determine if feasible.	1/7/2011	Accepted	Water bed replacement - Detail was removed
170	Jim Urtz	CT	8.9.1	Suggest deleting removal of electrically heated waterbed mattress. Energy-wasting items such as this can be part of homeowner education, and they can decide to have it removed or not, and to hire it out, or not.	1/7/2011	Accepted	Water bed replacement - Detail was removed
171	Bruce Schenke	GA	all-omission	Spray polyurethane open-cell and closed cell insulation is a rapidly growing insulation of choice by many home owners across the country, yet it is omitted from this document. Why?? Many US government agencies have found this insulation to be a premium energy saving insulation. Please contact SPFA, other industry members or myself for language to include in this document so that the spray polyurethane foam insulation is portrayed accurately here. Without this insulation represented the document becomes out of date and invalid. 678-575-7534	1/7/2011	Accepted	Being added
172	Jamee	WA	Appendix A	Heating, Cooling and Hot Water Systems: The term "duct blaster" is a proprietary product name from the Energy Conservatory. It should be replaced with "duct test", as this incorporates all manufacturers' duct testing equipment (i.e. Conduct pressure pan, "duct test" or Delta Q tests as necessary)		Accepted	Appendix A
173	Dona Stankus	NC	Appendix A	page 24 Moisture Control: No mention of internal humidity metrics or review of humidity device controllers/dehumidifiers/dehumidification system OR humidifiers (maybe under moisture source but would this still apply in dry climate?) In the following section: Topic: Attic Sealing Subtopic: Dropped Ceilings and Soffits 16) Detail Name: Dropped Ceiling with Light Boxes and Fixtures Row 3 The following language needs clarification. The 3" and "½" appear to conflict.	1/7/2011	Accepted	This will be cover more fully in phase 2
174	Darrell K. Winters	MS	attic sealing	If dropped ceiling is to be filled with insulation, then a sealed rigid barrier enclosure will be installed to maintain a 3" clearance on all sides and at least "½" from combustible materials	1/7/2011	Accepted	Dropped ceilings and soffits - 4.17.5

ID	Name	State	Section	Comment	Date	Status	Response
175	Darrell K. Winters	MS	attic sealings	<p>In the following sections:</p> <p>Topic: Attic Sealing Subtopic: Open Stairwells 8) Detail Name: Stairwell to Attic - Door at Bottom with No Ceiling Above Row 4</p> <p>Topic: Attic Sealing Subtopic: Sealing Open Stairwells 9) Detail Name: Stairwell to Attic - Door at Bottom with No Ceiling Above Row 4</p> <p>Topic: Attic Sealing Subtopic: Open Stairwells 10) Detail Name: Stairwell to Attic - Door at Top with Finished Ceiling Above Row 3</p> <p>Topic: Attic Sealing Subtopic: Dropped Ceilings and Soffits 12) Detail Name: New Ceiling Below Original - Old Ceiling Intact or Repairable Row 3</p> <p>The following language needs clarification. The terms support material and air barrier material should be defined.</p>	1/7/2011	Accepted	Added to glossary
176	Darrell K. Winters	MS	attic, accessible attic floors, 15)	<p>In the following section:</p> <p>Topic: Attic Subtopic: Accessible Attic Floors 15) Detail Name: Batt Installation -- Attic Floors Row 2</p> <p>The following language should be eliminated since this section applies to batts: "Existence of air barrier material in line with the knee walls will be installed or verified when dense packing"</p>	1/7/2011	Accepted	Redundant comment
177	Darrell K. Winters	MS	attic, attic ceilings, 7)	<p>The following language: "Loose fill fiber glass will only be used on a slope less than or equal to a 6:12 pitch or the slope application approved by the manufacturer, whichever is less" appears in the following section:</p> <p>Topic: Attic Subtopic: Attic Ceilings 7) Detail Name: Loose Fill Over Pitched Ceilings</p> <p>The following statement should be added to the above language, "This does not preclude dense packing of loose fill fiber glass at slopes greater than 6:12." The following language:</p>	1/7/2011	Accepted	Fill over pitched ceilings 6.7.3
178	Darrell K. Winters	MS	Attic; Exterior Walls	<p>* "Cellulose material will be installed to a minimum density of 3.5 pounds per cubic foot * Loose fiber glass material will be installed and will be specifically approved for air flow resistance to a minimum density of 2.2 pounds per cubic foot"</p> <p>appears in the following sections:</p> <p>Topic: Attic Subtopic: Attic Ceilings 8) Detail Name: Dense Pack Over Pitched Ceilings</p> <p>Topic: Attic Subtopic: Knee Walls 11) Detail Name: Preparation for Dense Packing</p> <p>Topic: Attic Subtopic: Enclosed Attic Floors 19) Detail Name: Dense Pack Installation -- Bonus Room Floor</p> <p>Topic: Attic Subtopic: Enclosed Attic Floors 20) Detail Name: Dense Pack Installation -- Attic Storage Platform</p> <p>Topic: Exterior Walls Subtopic: Preparation 28) Detail Name: Exterior Dense Pack</p>	1/7/2011	Accepted	Enclosed Cavities & Additional Cavities 6.30.3 - 6.31.3
179	Darrell K. Winters	MS	basements, insulation and conditioning, 32)	<p>The term "non-absorbent insulation" is used in the following section:</p> <p>Topic: Basements Subtopic: Insulation and Conditioning 32) Detail Name: Basement Wall Insulation -- Ground Water Leakage</p> <p>The term should be replaced with text similar to the following: Insulation must comply with the water vapor sorption requirements of ASTM C665-06. Section 7.5 states, "The water vapor sorption of the insulation without facing shall be not more than 5% by weight, when tested in accordance with 13.6." ASTM C 665 should also be included in the referenced standards.</p>	1/7/2011	Accepted	Insulation and conditioning 7.32.2

ID	Name	State	Section	Comment	Date	Status	Response
180	Darrell K. Winters	MS	forced air, equipment installation, 11) row 2	In the following section: Topic: Forced Air Subtopic: Equipment Installation 11) Detail Name: Condensate Drainage of Heating and Air Conditioning Equipment Row 2 The language should be modified by added the bracketed text as follows: Condensate drain lines will be insulated [with a minimum of 1" of insulation with a vapor retarder] when there is potential for condensation or freezing on the drain line.	1/7/2011	Accepted	Condensate Drainage of heating and air conditioning equipment - 5.11.2
181	Darrell K. Winters	MS	forced air, equipment installation, 8)	In the following section: Topic: Forced Air Subtopic: Equipment Installation 8) Detail Name: Duct System Row 1 The text should be modified by deleting the text in parenthesis and adding the bracketed text as follows: Duct material will be (selected) [installed] with [an R-value sufficient to] (insulation level and permeability that) prevent(s) condensation [and shall have an appropriate vapor retarder.] It should read, "Duct material will be installed with an R-value sufficient to prevent condensation and shall have an appropriate vapor retarder." Reason: As written the requirement is not clear, and the additional language will assure insulation systems prevent condensation and have a vapor retarder so they do not	1/7/2011	Accepted	5.8.1
182	Charlotte Brody	VA	general	The BlueGreen Alliance applauds this ambitious effort to set strong guidelines for energy efficient residential upgrades. Because we believe this document is so significant, we encourage the Department of Energy to focus more attention on how the use of safer materials can improve the health and safety of weatherization workers and the occupants of the homes that will be retrofitted. For example, the draft guidelines warn against the hazards posed by mercury and insulation materials, but do not guide the reader to information on how to choose wallboard that is free of mercury contamination or insulation that does not require installers to use respirators and protective clothing. We have included specific language in each section that aims to give the reader enough information to be able to seek out safer material choices without overburdening the document. The BlueGreen Alliance is a national, strategic partnership between 13 labor unions and environmental organizations dedicated to expanding the number and quality of jobs in the green economy. We believe that the implementation of these guidelines can provide market opportunities that create more good, green jobs manufacturing greener, healthier products and using these products to make American homes more energy efficient. Thank you for creating this important document and for providing us an opportunity to comment.	1/4/2011	Accepted	A number of the specific suggestions have been incorporated.
183	Jay Zhang	MO	Glossary	need to add Sealant Foam: One- or two-component polyurethane foam typically applied as a bead and used to control air leakage as part of an air barrier system within the building envelope. Sealant foams generally have nominal core densities of 8 - 40 kg/m3 (0.5 - 2.5 lb/ft3).	1/7/2011	Accepted	Glossary
184	Shelley Kawamura	CO	Health and Safety	Recommend that Health and Safety sections be more specific to targeted content. "Blanket" information may lead to complacency	1/7/2011	Accepted	Reformatting responds to this
185	Darrell K. Winters	MS	Health and Safety, Safe work practices, 1)	In the following section: Topic: Health and Safety Subtopic: Safe Work Practices 1) Detail Name: Insulation Worker Safety Row 13 Add rock wool and slag wool to the list of attic insulations.	1/7/2011	Accepted	6.1.2
186	Myron Katz	LA	page 17	indentify is misspelled twice on this page!	1/6/2011	Accepted	Page 17
187	Donald Prather	VA	Page 36 2.2.1	Recommend changing the wording in the Specifications Section to read: Furnace, heat pump and air conditioner fan will be set to operate at the highest design speed. Reason: In many applications the highest fan speed is not utilized for operating the equipment.	12/21/2010	Accepted	Combustion appliance zone testing 2.2.1
188	Kelly Frauenkron	MN	Section 6	Spray polyurethane foam (SPF) is a viable choice for use in retrofit applications, not only has a high-performance insulation, but also for excellent air-sealing characteristics and in the case of closed-cell, moisture and vapor resistance. To exclude it from the standard work specifications as a possible insulation materials is to give a disadvantage to the homeowners that may choose to use this alternative material. Please take into consideration the inclusion of SPF insulation in your final document.	1/7/2011	Accepted	Being covered by the spray polyurethane alliance
189	Jim Melesky	PA	section 6.22.2	Spec suggested wording- The attic hatch will be durably air sealed. Options include weather stripping the hatch frame with a latch or lock installed, or frictionally engaged components of a pre-fab unit above the opening, or other durable air sealing measures. In the case of frictionally engaged components with a frame and lid component, there is no need for a latch or lock so long as a durable air seal is attained. Justification- Weather stripping represents only one method of air sealing and the existing wording would eliminate other comparable and superior methods of air sealing. Frictionally engaged components have produced highly effective results in the field, are far faster to install and are easier for the resident to use.		Accepted	

ID	Name	State	Section	Comment	Date	Status	Response
190	Jay Zhang	MO	SUMMARY OF STANDARDS REFERENCED:	<p>http://www.astm.org/Standards/C1620.htm</p> <p>ASTM C1620 1. Scope 1.1 This specification covers the types, grades, and physical properties of aerosol polyurethane and aerosol latex foams extruded from pressurized containers and intended for building envelope air barrier sealant applications in building construction. 1.2 For specific aerosol foam sealant applications, operational temperature limit criteria shall be as agreed upon between the aerosol sealant manufacturer and the purchaser. 1.3 The values in SI units are to be regarded as standard. The values shown in parentheses are for information and approximation only. 1.4 The committee with jurisdiction over this standard is not aware of any comparable standards published by other organizations. 1.5 This standard does not purport to address all of the safety concerns, if any, associated with its use. It is the responsibility of the user of this standard to establish appropriate safety and health practices and determine the applicability of regulatory requirements prior to use.</p> <p>2. Referenced Documents ASTM Standards C168 Terminology Relating to Thermal Insulation C390 Practice for Sampling and Acceptance of Preformed Thermal Insulation Lots C518 Test Method for Steady-State Thermal Transmission Properties by Means of the Heat Flow Meter Apparatus C717 Terminology of Building Seals and Sealants C1536 Test Method for Measuring the Yield for Aerosol Foam Sealants D883 Terminology Relating to Plastics E84 Test M...</p>	1/7/2011	Accepted	I assume the reviewer wishes to include in the the SWS. Taken with the two comments just above, this seems like a reasonable request.
191	Darrell K. Winters	MS	whole house ventilation, other topics, 22)	<p>In the following section:</p> <p>Topic: Whole House Ventilation Subtopic: Other Components 22) Detail Name: Heat Recovery Ventilation (HRV) and Energy Recovery Ventilator (ERV) Installation Row 8</p> <p>The text should be modified as follows:</p> <p>Supply ducts will be insulated between the HRV or ERV and the outside air intake to a minimum of R-8 or equivalent to local codes</p> <p>Reason: The IECC requires supply ducts in attics be insulated to a minimum of R-8.</p>	1/7/2011	Accepted	Heat Recovery Ventilation and Energy Recovery Ventilator - 3.22.8
192	Darrell K. Winters	MS	whole house ventilation, special considerations, 25) row1	<p>In the following section:</p> <p>Topic: Whole House Ventilation Subtopic: Special Considerations 25) Detail Name: Regional Considerations Row 1</p> <p>The bracketed text should be added as follows:</p> <p>Ventilation ducts will be insulated to [a minimum of] R-19.</p> <p>Reason: It should be clear that R-19 is the minimum, and greater R-values are permitted.</p>	1/7/2011	Accepted	Ventilation Regional Considerations 3.25.1
193	Mike Moore	NY	0	<p>As a voting committee member of ASHRAE 62.2, I was surprised by how often the standard was incorrectly referenced within this guide. My comments that will follow will all address the treatment of the standard and related mechanical ventilation requirements within this document. I would strongly encourage the authors to give the comments serious consideration to ensure that this consensus standard is accurately represented. Thanks for the opportunity to provide input within this process. - Mike Moore, P.E., Newport Ventures, mmoore@newportpartnersllc.com</p>	1/6/2011	Rejected	This should go to ventilation expert
194	Charlotte Brody	VA	0	<p>The BlueGreen Alliance applauds this ambitious effort to set strong guidelines for energy efficiency residential upgrades. Because we believe this document is so significant, we encourage the Department of Energy to focus more attention on how the use of safer materials can improve the health and safety of weatherization workers and the occupants of retrofitted homes.</p> <p>For example, the draft guidelines warn against the hazards of mercury but do not help the reader identify which sheetrock products contain this hazardous chemical. Other examples can be found in the section on insulation in which the hazards of different types of insulation are mentioned but without enough information to help the reader make safer choices for workers and occupants. We have included specific language in our comments to each section that aims to give the reader enough information to seek out safer products without overburdening the document.</p> <p>The BlueGreen Alliance is a national strategic partnership between 13 labor unions and environmental organizations dedicated to expanding the number and quality of jobs in the green economy. We believe that the implementation of these guidelines can provide market opportunities that create more good, green jobs manufacturing healthier products and using these products to make homes more energy efficient. Thank you for creating this important document and for giving us this opportunity to comment.</p>	1/4/2011	Rejected	Policy issues: Do we want to include more specific guidance re material selection.
195	Tolle Graham	MA	0	<p>The National Council for Occupational safety and Health (www.coshnetwork.org)applauds the effort to prsrnt guidance for energy efficient residential upgrades. Our focus is worker health and safety. We think it is important to include responsible contractor requirements such as: contractor shall establish a written safety and health program to manage workplace safety and health to reduce injuries, illnesses and fatalities by systematically achieving compliance with OSHA standards and other relevant standards. The program must address potential hazards unique to weatherization tasks, as well as all other potential workplace hazards to which employees may be exposed, and a copy must be maintained at each workplace or at a central worksite if the employer has non-fixed worksites. The program must identify at least one competent person as defined in the OSHA standards, to receive and respond to reports about workplace safety and health conditions and, where appropriate, to initiate corrective action. The program must have the following core elements: (1) management leadership and employee participation; (2) hazard identification and assessment; (3) hazard prevention and contprevention and control; (4) information and employee training; and (5) recordkeeping, including demographic data and on injuries and complaints filed.</p> <p>We also want more emphasis on selection and resources for safer materials used in weatherization work.</p>	1/7/2011	Rejected	Policy issues: Do we want to include more specific guidance re material selection. Also, requirements for written worker safety program, while laudable, may not be implementable for many of the very small contractors who do this work. This needs careful consideration.
196	Chris Stratton	CA	1	<p>These specifications are much more vague and general than the specifications in every other section. The appendix for this section is more specific than these specifications. These categories could be turned into bullet points and the contents of the appendix could become the specifications for this section.</p>	12/21/2010	Rejected	
197	Chris Stratton	CA	1.1	<p>These specifications are much more vague and general than the specifications in every other section. The appendix for this section is more specific than these specifications. These categories could be turned into bullet points and the contents of the appendix could become the specifications for this section.</p>	12/21/2010	Rejected	
198	Frank Stanonik	VA	2.1	<p>The specification uses non standard terminology and, generally reflects a lack of knowledge about gas appliances. Most Category 1 gas appliances have draft hoods, not draft regulators. Manufacturers do not specify a "draft" value. The shortcomings of the CAZ test have already been addressed in our previous comments. The National Fuel Gas Code addresses how to check for draft but does not reference any set value. With the proper reference to the National Fuel Gas Code elsewhere, this specification is completely unnecessary.</p>	1/7/2011	Rejected	Needs a panel of experts to review. This will require a major change in combustion safety. I suggest a combustion summit.

ID	Name	State	Section	Comment	Date	Status	Response
				The contents of the "Health and Safety" topic are nearly identical for every section. It would make sense to just list these general Health and Safety specifications once (perhaps in its own section), and remove redundant specifications that are in each section. Only health and safety specifications that are applicable specifically to one section should be included within the section itself.			
199	Chris Stratton	CA	2.1	The EPA has already created a worker and occupant health and safety guide to accompany this publication. (http://www.epa.gov/iaq/pdfs/epa_retrofit_protocols_draft_110910.pdf). This document should point the reader to that guide or it should be included (perhaps as an appendix or its own section?) in this document.	12/21/2010	Rejected	First suggestion incorporated. Second needs to be considered. Unable to access document.
200	Frank Stanonik	VA	2.4	This specification is poorly described and incorrect. The subtopic is draft. Measuring the CO has nothing to do with determining if the appliance is drafting properly. As noted on the comment on 2) the ASTM E1998 standard has limited applicability. Also, there is no Acceptable Draft Pressure Table in Appendix B. Any specifications for draft testing should reference the National Fuel Gas Code, which is more comprehensive than the ASTM standard.	1/7/2011	Rejected	Needs a panel of experts to review. This will require a major change in combustion safety. I suggest a combustion summit.
201	Frank Stanonik	VA	2.9	This specification for orphaned water heaters mischaracterizes the issue and specifies unnecessary testing. In the case of gas water heaters industry research in the 1990's validated a "7 times" rule. In general, the internal area of the chimney or vertical vent should not be larger than 7 times the area of the water heater flue collar or draft hood outlet. This situation has been properly addressed by the venting specifications and tables of the National Fuel Gas Code since the mid-1990's. It is not necessary to conduct the CAZ test. Furthermore, the concern about orphaned water heaters relates to ventilation air not combustion air. The proper solution is resize the venting system in accordance with the National Fuel Gas Code, not try to provide more combustion air.	1/7/2011	Rejected	Needs a panel of experts to review. This will require a major change in combustion safety. I suggest a combustion summit.
202	Shelley Kawamura	CO	2.9	I didn't see provisions for wood burning stove/fireplace safety or combustion gas leakage/backdrafting. Perhaps in another location in the document?	1/7/2011	Rejected	Needs a panel of experts to review. This will require a major change in combustion safety. I suggest a combustion summit.
203	Tolle Graham	MA	3.1	Similar comments to previous section. To summarize: add all OSHA ref. in chart; PPE sections consecutive; bring chemical and Prevention through Design to top of chart; emphasize written hazard assessment plan and resources/ references/methods for safer alternatives assessments	1/7/2011	Rejected	Redundant Comment
204	Shelley Kawamura	CO	3.2	Metal ductwork should be free from oil residues (new ductwork) and should not be treated with antimicrobial products	1/7/2011	Rejected	This may be too specific for the purpose of this document and we're not sure of the basis for concern regarding the use of antimicrobial products
205	Gary Crow	FL	3.9	Guidance could be given as to the proper ventilation rates for garages. The USGBC LEED for Homes Rating System contains such guidance and should be considered for inclusion in this document.	1/5/2011	Rejected	Unable to provide preferred ventilation rates at this time.
206	Matt Redmond	NY	4	General comment: No mention of basement air sealing at all. No rim joint air sealing referenced. With the negative pressure in the bottom of any house (stack) the air sealing of windows, dryer vents, gas pipes and rim joists should be mentioned. Chases and chimneys can be air sealed in the basement as well as plumbing, mechanical and electric penetrations. No mention of air sealing from in the shell (in the house) around plumbing penetrations in kitchens and bathrooms. (Important if dense packing in order to secure the shell and even more important if you are not dense packing since then it will be the only air sealing boundary. So it should/needs to be mentioned either way)	1/7/2011	Rejected	A basement expert need to write this section
207	Matthew Hansen	MI	4	The text of the air sealing section does not refer to any particular type of sealant for air sealing but in rows instructing sealant selection, it includes references to only materials standards for latex sealants. This excludes entire product line options such as latex or polyurethane foam sealants. Foam sealants are used broadly throughout the industry for air sealing and energy upgrades. Any reference to ASTM C834-10 should also reference ASTM C1620-05. Also references to ASTM C1193-09 should also reference ASTM C1620-05. The Weatherization Assistance Program Technical Assistance Center (WAPTAC) that is linked on the DoE website includes Field Standards and Guides such as the Midwest Weatherization Best Practices that include foam sealants as appropriate air sealing materials. This was an oversight on part of the committee that should be corrected prior to publication.	1/7/2011	Rejected	Standards must be checked
208	Tolle Graham	MA	4.1	Same as other sections: add OSHA ref. in chart. Put PPE/respiratory protection in sections consecutively. Make reference to removable protective clothing consistent throughout guidance. Move chemical section and overview on written hazard assessment to top of chart to emphasize over all plan and references/resources for selection of safer materials. This section doesn't have Prevention through design. Why not? Put at top of chart if added.	1/7/2011	Rejected	Redundant Comment
209	Matt Redmond	NY	4.7	Pocket Door section doesn't specify whether or not it is referring to the door slot "as in the door is not to be used" or behind the door (more difficult). I assume that they are just talking about the slot. Should have a separate section.	1/7/2011	Rejected	We need an expert write this section
210	Sean Lintow Sr	AL	5	This of course leads me to some important questions I think need to be answered; why is the yearly maintenance of a furnace listed under Energy Efficiency, but not under Health & Safety? Why isn't a proper tune-up & maintenance a requirement of any program? Why are you leaving out a trained individual with experience that will probably notice a venting issue, or problem that many "certified" individuals would miss? Why are you allowing people with no background in this arena to drill into vent stacks, furnaces, and other items that they do not even know how to properly seal? If testing all these items is so important for an occupant's health and safety, why are we not pushing for them to be done as part of their yearly maintenance, instead of just once when an "Energy Audit" is done? (Last I checked, more furnaces, boilers, etc... get an annual checkup than houses get an energy audit) Misc. Suggestions: While I truly do believe a guide like this is necessary for your programs only, this one is truly overkill and unfortunately a big mess. You could quite easily create this guide in 30 to 50 pages by trimming up a lot of the fat. For example -- the Safe Work Practices is repeated at least 8 times resulting in at least 32 pages worth of info that is the same. Many of the other "practices" are just repeating the same old information seen in a prior page also, with only a line or two of applicable information.	12/10/2010	Rejected	Needs a panel of experts to review. This would be a major change that affects safety in a large way. I suggest a combustion summit.
211	Frank Stanonik	VA	5.1	The specifications should also reference the appliance manufacturer's installation instructions. The specification in row 3 would be more properly stated as "When one or more common vented appliances are removed, then existing vent system shall be evaluated in accordance with the National Fuel Gas Code to determine if the venting system must be modified."	1/7/2011	Rejected	Needs a panel of experts to review. This will require a major change in combustion safety. I suggest a combustion summit.
212	Tolle Graham	MA	5.1	Same as other sections: add OSHA ref. in chart; have PPE/respiratory protection sections consecutively in chart; bring chemical and prevention through design to top of chart with references for selection of safer materials and emphasis at top on written hazard assessment	1/7/2011	Rejected	Redundant Comment
213	Frank Stanonik	VA	5.16	This appears to be specific to oil-fired equipment. If that is correct the subtopic should state Commissioning of Oil-Fired Appliances." Also row 8 incorrectly references the safety standard for residential gas ranges. The reference should be to applicable UL safety standards for oil-fired appliances.	1/7/2011	Rejected	Changed title to 5.16. Need assistance with proper safety standard to reference.
214	Jim Urtz	CT	5.39	"Gas Boiler -- Annual Service" Believe this section should not be part of this work spec document. The need and value of having it performed should be communicated to the homeowner, and then the homeowner should contract with someone to see that it is done. By including it here, it seems as though the duty to conduct the annual servicing belongs to the Weatherization contractor.	1/7/2011	Rejected	
215	Tolle Graham	MA	6.1	As in other sections: add OSHA ref. in chart; PPE/respiratory protections sections consecutive in chart; require removable protective clothing; bring chemical section w added references to find safer materials to top along with new section on written hazard assessment; no prevention through design section-why not?	1/7/2011	Rejected	Redundant Comment
216	Earl Henry sr.	AZ	7	in confined crawl space should we use co tester before entering confined crawl space and add air source during inspection.I think it would be a good safety practice.	1/4/2011	Rejected	Need to consult w/ safety experts
217	Tolle Graham	MA	7.1	Same as other sections: add OSHA ref to chart; PPE and respiratory protection sections should be consecutive in chart; bring chemical and Design through prevention sections to top with references/methods for safer alternatives assessment. Add new section at top about completing a written hazard assessment plan and with identification of competent/lead person on site.	1/7/2011	Rejected	Redundant Comment
218	Tolle Graham	MA	8.1	As in other sections: add all OSHA ref. into chart; have PPE and respiratory protection section consecutive in chart; have chemicals and prevention through design at top	1/7/2011	Rejected	Redundant Comment

ID	Name	State	Section	Comment	Date	Status	Response
219	Keith Burkhardt	KY	8.11	<p>There are several types of water heaters available today including standard electric, electric heat pump, gas storage, gas condensing and gas tankless water heaters. In 2009, the Department recognized the tremendous energy savings opportunity that water heaters represent and created an ENERGY STAR product category for water heaters. The new water-heating category contains four eligible product types: heat pump, tankless gas, gas condensing and high efficiency gas storage water heaters. Since many of these highly efficient ENERGY STAR rated products are new to the market compared to the traditional standard electric and standard gas products, the installed base of water heaters in the United States primarily consists of these minimally efficient conventional products. Thus, there is a significant opportunity for energy savings as consumers and homeowners replace their existing minimum efficiency water heater with these new high efficiency ENERGY STAR rated water heaters.</p> <p>Presently, the water heater industry is evenly split with approximately 50% of water heaters using natural gas or propane, and 50% using electricity. Solar and geothermal water heating is a very small segment of the market, but is growing. Replacement options for natural gas or liquid propane water heating are conventional gas storage, high efficiency gas storage, tankless gas and gas condensing. High efficiency gas storage, tankless gas, and gas condensing water heaters are eligible for the Energy Star rating.</p> <p>Replacement options for electric water heating are conventional electric water heaters which use standard resistance elements to heat the water and heat pump water heaters which use a heat pump as the primary means of heating the water and usually have electric resistance elements for backup or high demand situations. Heat pump water heaters are the only electric water heaters eligible for the ENERGY STAR rating. Selecting an ENERGY STAR rated heat pump water heater instead of a standard electric water heater can result in energy savings of 55% or more.</p> <p>ENERGY STAR water heaters typically cost more than standard water heaters, but the energy savings typically offer an excellent payback. For example, in the case of an ENERGY STAR rated heat pump water heater that costs \$1500, the annual energy savings is \$300, and offers a payback period of less than 4 years compared to a standard electric water heater. (Both standard electric and heat pump water heaters have an average life expectancy of 13 years.)</p> <p>Due to the significant opportunity for energy savings and the quick payback period for their owners, ENERGY STAR water heaters should be selected whenever possible to replace standard water heaters. GE urges the Department to focus on energy efficiency and operating cost-effectiveness in the water heating section of the Guidelines and explicitly recognize the superior energy efficiency and performance that electric heat pump water heaters can provide.</p>	1/7/2011	Rejected	Not health & safety
220	Tolle Graham	MA	8.16	routine maintenance may be outside the scope of this document. Should be part of homeowner education and chart should apply to the person who performs maintenance work.	1/7/2011	Rejected	
221	Jay Swoboda	NE	40722	Should allow injection foam as option to dense pack.	12/20/2010	Rejected	Should be added to foam section in the future
222	Russ Shaber	CO	1.1.1	This may contradict local Mechanical Codes and require that a combustion technician carry an HVAC license. There are less costly ways to ensure client safety. CO, smoke and fire detectors. Minimal testing could include just CO and simple spillage.	1/7/2011	Rejected	Needs a panel of experts to review. This would be a major change that affects safety in a large way. I suggest a combustion summit.
223		PA	1.1.1	Please delineate other protocols other than BPI for combustion testing.	1/6/2011	Rejected	Needs a panel of experts to review. This will require a major change in combustion safety. I suggest a combustion summit.
224	Mark Krebs	MO	1.1.1	<p>A: The specification of the BPI protocol is inappropriate for the following reasons:</p> <ol style="list-style-type: none"> 1. It is not adequately identified or otherwise provided as a reviewable reference such as those provided on page 2. Consequently, it is impossible to validate the appropriateness of this nebulous reference. 2. Referenced standards should be properly vetted and accredited by ANSI. <p>B. For the same reasons listed above, the term "other equivalent protocol" is unacceptable.</p>	1/5/2011	Rejected	Needs a panel of experts to review. This will require a major change in combustion safety. I suggest a combustion summit.
225	Jay Zhang	MO	1.4.4	<p>Combustion testing will be conducted in accordance with the Building Performance Institute (BPI) protocol or other equivalent protocol</p> <p>all footnotes in all sections throughout the document, that contains "ASTM C834 - 10"</p> <p>Revise from "ASTM C834 - 10" to "ASTM C834-10 for latex sealant and "ASTM C1620-05 for Aerosol Foam Sealants"</p> <p>Reason: As air sealing material, Foam Sealants are practically equal important and widely utilized</p>	1/7/2011	Rejected	reviewer is not familiar with this ASTM standard, so he cannot comment on this item. If foam sealants are used, fire codes must be respected.
226	Tolle Graham	MA	2.1.1	have specific OSHA ref. in chart. Put all PPE together. Require PPE assessment to determine use of PPE. Require protective clothing due to dust, fiberglass etc.	1/7/2011	Rejected	Redundant Comment
227	Tolle Graham	MA	2.1.10	add OSHA ref in chart. look for other fall protection resources such as NIOSH or state occ health programs	1/7/2011	Rejected	Need additional expertise
228	Tolle Graham	MA	2.1.11	add OSHA ref in chart and other best practice examples	1/7/2011	Rejected	Redundant Comment
229		PA	2.1.3	For arc flash hazard prevention, cost considerations may preclude acquisition of insulated tools, flame resistant apparel, face shields & flash suits	1/6/2011	Rejected	Need better handle on cost/benefits of this one
230	Tolle Graham	MA	2.1.4	add requirement to wear full protective suit and measures to keep hazards from coming home on workers clothing	1/7/2011	Rejected	This sounds like a good idea. Need to consult with our experts before adding it.
231	Greg Nettleton	WI	2.1.5	"Use of toxic material will be reduced." This specification is vague. Suggest further development of a chart or table to provide guidance for suitable materials to be installed given potential scenarios present given access, type and condition of foundation wall and exposure to living space.	1/7/2011	Rejected	This would be an excellent future addition to the tool.
232	Tolle Graham	MA	2.1.5	Add OSHA specific standard ref. in chart. have methods/references for choosing safer materials.	1/7/2011	Rejected	This would be an excellent future addition to the tool.
233	Joe Hall	CO	2.1.5	use of spotters at entry point to observe the insulator in confined attics. workers do not enter attics with less than 24" clearance it should be considered a closed attic and other methods should be utilized, ie. drill and blow.	1/7/2011	Rejected	This sounds like a good idea. Need to consult with our experts before adding it.
234	Charlotte Brody	VA	2.1.7	Mercury is never a fiber. Correct to read mercury in sheetrock and gypsum board and cite www.pharosproject.net or a similar listing of contaminated and noncontaminated wallboards.	1/4/2011	Rejected	This sounds like a good idea. Need to consult with our experts before adding it.
235	Tolle Graham	MA	2.1.7	Provide references for methods and other standards/regs for choosing safer materials and the associated choices for hazard control for each material. Section on chemicals, and prevention through design should be at the top of the chart to emphasize a "safer alternatives assessment approach".	1/7/2011	Rejected	Good ideas. Needs development Need to double-check with our OSHA consultants, who attempted to insert all applicable OSHA references
236	Tolle Graham	MA	2.1.8	Add OSHA reference to chart.	1/7/2011	Rejected	
237	Donald Prather	VA	2.10.1 Page 47	Specifications section wording should be changed to: Draft regulator operation will be checked by trained technicians utilizing the original equipment manufacturers installation instructions on combustion testing in conjunction with all applicable local and national gas codes. Reason: Draft regulators may or may not be required on equipment	12/23/2010	Rejected	Needs a panel of experts to review. This will require a major change in combustion safety. I suggest a combustion summit.
238	Mark Krebs	MO	2.10.4	Our concerns and comments are essentially the same as those submitted under Section 2.9.3. Therefore, they apply here equally.	1/5/2011	Rejected	Needs a panel of experts to review. This will require a major change in combustion safety. I suggest a combustion summit.

ID	Name	State	Section	Comment	Date	Status	Response
239	Ted A. Williams	DC	2.10.4	See my comment on 2.8.1. Category I appliances do not involve unique considerations here.	1/7/2011	Rejected	Needs a panel of experts to review. This will require a major change in combustion safety. I suggest a combustion summit.
240	Ted A. Williams	DC	2.10.5	See my comment on 2.8.4. Category I appliances do not involve unique considerations here.	1/7/2011	Rejected	Needs a panel of experts to review. This will require a major change in combustion safety. I suggest a combustion summit.
241	Donald Prather	VA	2.10.5 Page 47	Specifications section should be changed to: Testing to make sure that gas appliances are operating safely, combustion testing should be done by trained technicians utilizing the Original Equipment Manufacturers data, the National Fuel Gas Codes (NFPA) 54 2009 and the 2009 ICC International Fuel Gas Code (IFGC) and with guidance from ASTM E1998-02(2007). Reason: Combustion Appliance Zone Test (CAZ) is not in the glossary and has no individual HVAC industry recognized standard definition. The BPI protocol is not a recognized combustion performance standard in the HVAC industry.	12/23/2010	Rejected	Needs a panel of experts to review. This will require a major change in combustion safety. I suggest a combustion summit.
242	Donald Prather	VA	2.2 Page 36 2.2	Recommend that this section be removed until there is an industry wide recognized testing procedure for combustion appliance zone testing. Or that the bar for those qualified to test HVAC appliance be raised to the following level: Testing to make sure that gas appliances are operating safely should be done by trained technicians utilizing the original equipment manufacturers installation instructions and venting design requirements in conjunction with all applicable local and national gas codes. Combustion Reason: Appliance Zone Test (CAZ) is not in the glossary and has no singular one size fits all HVAC industry recognized standard definition. Additionally, there are currently no HVAC industry wide universally accepted one size fits all combustion testing standards. Testing to make sure that gas appliances are operating safely should be done by trained technicians utilizing the original equipment manufacturers installation instructions and venting design requirements in conjunction with all applicable local and national gas codes. Some nationally recognized tests incorrectly state that the EPA and ASHRAE allow 9ppm of CO in a residential environment. The 9ppm is for an 8 hour exposure in a work environment where it is assumed the worker will leave thus allowing the CO level in the blood stream to reduce over the 16 hours in a day. CO levels should be less than 5ppm and preferably at 0ppm for residential living space.	12/23/2010	Rejected	Needs a panel of experts to review. This will require a major change in combustion safety. I suggest a combustion summit.
243	Joe Hall	CO	2.2.2	more detail is needed here, to me it looks like a room to room pressure test with the air handler running. or part of the CAZ test. put the CAZ with CAZ, and call this room to room pressure diagnostics. not interior door closure.	1/7/2011	Rejected	Needs a panel of experts to review. This will require a major change in combustion safety. I suggest a combustion summit.
244	Joe Hall	CO	2.2.3	is this CAZ testing or an attempt to do a prescriptive worst case depressurization combustion safety test?	1/7/2011	Rejected	Needs a panel of experts to review. This will require a major change in combustion safety. I suggest a combustion summit.
245	Ted A. Williams	DC	2.2.4	Delete section in its entirety or provide an exception for gas-fired appliances installed and inspected in accordance to the National Fuel Gas Code (NFGC) (ANSI Z223.1/NFPA 54 - 2009 edition), Section 9.3, "Air for Combustion and Ventilation." The cited ASTM document is a standard test guide and does not establish depressurization limits applicable to gas-fired appliances as the reference implies. In fact, there are no national consensus standard depressurization limits for proper venting of gas-fired appliances. The cited ASTM standard guide described the diverse outcomes that result from setting of depressurization limits and individual appliance installation conditions and a weakness of the procedure in not actually testing appliance operation (Section 8.6 Results and Interpretations). Proper installation for venting and combustion should be based on review of the installation in accordance with the NFGC. Requirements under this national consensus standard have never been shown to be insufficient for achieving and maintaining proper operation and venting of properly installed gas-fired appliances.	1/7/2011	Rejected	Needs a panel of experts to review. This will require a major change in combustion safety. I suggest a combustion summit.
246	Donald Prather	VA	2.2.4 Page 37	Specifications section recommend changing wording to: Depressurization limits should be established by referencing Original Equipment Manufacturers data, the National Fuel Gas Codes, NFPA 54 2009, and the ICC International Fuel Gas Code (IFGC) Reason: The Zone Depressurization Table Limits (Appendix B) is not an individual HVAC industry recognized standard practice or procedure that can be universally applied. Testing to make sure that gas appliances are operating safely should be done by trained technicians utilizing the original equipment manufacturers installation instructions and venting design requirements in conjunction with all applicable local and national gas codes. For example the BPI CAZ test allows only 2 minutes of back-drafting but is based on the ASTM procedure which allows up to 5 minutes of back-drafting while some OEM directions will not allow any back-drafting.	12/23/2010	Rejected	Needs a panel of experts to review. This will require a major change in combustion safety. I suggest a combustion summit.
247	Frank Stanonik	VA	2.3.1	This is a poorly and insufficiently described specification. The specified limit of 1 minute of spillage is too simplistic and unjustified. The referenced standard for this specification should be the National Fuel Gas Code	1/7/2011	Rejected	Needs a panel of experts to review. This will require a major change in combustion safety. I suggest a combustion summit.
248	Ted A. Williams	DC	2.3.1	Delete section in its entirety or provide an exception for gas-fired appliances that are (1) design certified to the applicable product ANSI Z21 standard, and (2) installed in accordance with venting requirements of the National Fuel Gas Code (NFGC) (ANSI Z223.1/NFPA 54 - 2009 edition) and to the manufacturers' installation instructions required under the applicable national consensus standard. Z21 standards for vented gas-fired appliances apply spillage tests and performance requirements as a part of design certification and tested under conservative installation practices. Standard installation requirements for venting used in conjunction with venting and combustion air requirements in the NFGC Section 9.3, "Air for Combustion and Ventilation" and Chapter 12 "Venting of Appliances" have never been shown to be insufficient to avoid significant spillage of combustion products. The proposed test is unnecessary and redundant with design certification of vented gas-fired appliances. Also, the spillage time limit of the currently proposed specification is in conflict with the requirements of the design certification testing requirements for gas-fired appliances, and no justification for this conflict is provided in the proposed language.	1/7/2011	Rejected	Needs a panel of experts to review. This will require a major change in combustion safety. I suggest a combustion summit.
249	Donald Prather	VA	2.3.1 Page 38	Specifications wording should be changed to: Spillage should be established by referencing Original Equipment Manufacturers data, the National Fuel Gas Codes, NFPA 54 2009, and the ICC International Fuel Gas Code (IFGC) and ASTM E1998-02(2007) Reason: Allowable spillage time is not an HVAC industry recognized standard practice or a procedure that can be universally applied. ASTM E1998 -- (2007) was written as a guide and even if cited as a standard; the spillage section cited is in a non binding Appendix. Testing to make sure that gas appliances are operating safely should be done by trained technicians utilizing the original equipment manufacturers installation instructions and venting design requirements in conjunction with all applicable local and national gas codes. Any spillage can become a problem under short cycling conditions.	12/23/2010	Rejected	Needs a panel of experts to review. This will require a major change in combustion safety. I suggest a combustion summit.
250	Donald Prather	VA	2.3.1 Page 38	Specifications wording should be changed to: Spillage should be established by referencing Original Equipment Manufacturers data, the National Fuel Gas Codes, NFPA 54 2009, and the ICC International Fuel Gas Code (IFGC) and ASTM E1998-02(2007) Reason: Allowable spillage time is not an HVAC industry recognized standard practice or a procedure that can be universally applied. ASTM E1998 -- (2007) was written as a guide and even if cited as a standard; the spillage section cited is in a non binding Appendix. Testing to make sure that gas appliances are operating safely should be done by trained technicians utilizing the original equipment manufacturers installation instructions and venting design requirements in conjunction with all applicable local and national gas codes. Any spillage can become a problem under short cycling conditions.	12/23/2010	Rejected	Needs a panel of experts to review. This will require a major change in combustion safety. I suggest a combustion summit.
251	Joe Hall	CO	2.4.1	would add, under worst case CAZ depressurization.	1/7/2011	Rejected	Needs a panel of experts to review. This will require a major change in combustion safety. I suggest a combustion summit.
252	Ted A. Williams	DC	2.4.1 & 2.4.2	Delete section in its entirety or provide an exception for gas-fired appliances that are (1) design certified to the applicable product ANSI Z21 standard, and (2) installed in accordance with venting requirements of the National Fuel Gas Code (NFGC) (ANSI Z223.1/NFPA 54 - 2009 edition) and to the manufacturers' installation instructions required under national consensus standard. Z21 standards for vented gas-fired appliances apply draft tests and performance requirements as a part of design certification and tested under conservative installation practices, including coverage of venting in dedicated and common venting system designs. Breadth of coverage of these venting system designs have been supported by years of peer-reviewed research sponsored by the natural gas industry. Standard installation requirements for venting used in conjunction with venting and combustion air requirements in the National Fuel Gas Code (ANSI Z223.1/NFPA 54 - 2009 edition), Section 9.3, "Air for Combustion and Ventilation" have never been shown to be insufficient to avoid significant spillage of combustion products. The proposed test is unnecessary and redundant with national consensus standards covering design certification of gas-fired appliances and proper installation and venting.	1/7/2011	Rejected	Needs a panel of experts to review. This will require a major change in combustion safety. I suggest a combustion summit.
253	Donald Prather	VA	2.4.1 Page 39	Specification Section should be changed to read: Individual draft venting should be tested by trained technicians utilizing Original Equipment Manufacturers data, the National Fuel Gas Codes (NFPA) 54 2009 and the 2009 ICC International Fuel Gas Code (IFGC), and the ASTM E1998-02(2007) guidelines in Appendix 4. Reason: Draft Testing does not have an individual HVAC industry recognized standard practice or procedure that can be universally applied. Testing to make sure that gas appliances are operating safely should be done by trained technicians utilizing the original equipment manufacturers installation instructions and venting design requirements in conjunction with all applicable local and national gas codes. Additionally, for some equipment types, 5 minutes may not be a long enough run time to safely assess the depletion of oxygen or build up of combustion contaminants in an enclosed space.	12/23/2010	Rejected	Needs a panel of experts to review. This will require a major change in combustion safety. I suggest a combustion summit.
254	Joe Hall	CO	2.4.2	would add, under worst case CAZ depressurization.	1/7/2011	Rejected	Needs a panel of experts to review. This will require a major change in combustion safety. I suggest a combustion summit.

ID	Name	State	Section	Comment	Date	Status	Response
255	Donald Prather	VA	2.4.2 Page 39	<p>Specification Section should be changed to read: For shared appliance venting draft should be tested by trained technicians utilizing Original Equipment Manufacturers data, the National Fuel Gas Codes (NFPA) 54 2009 and the 2009 ICC International Fuel Gas Code (IFGC), and the ASTM E1998-02(2007) guidelines in Appendix 4.</p> <p>Reason: Draft Testing does not have an individual HVAC industry recognized standard practice or procedure that can be universally applied. Testing to make sure that gas appliances are operating safely should be done by trained technicians utilizing the original equipment manufacturers installation instructions and venting design requirements in conjunction with all applicable local and national gas codes. Additionally, for some equipment types, 5 minutes may not be a long enough run time to safely assess the depletion of oxygen or build up of combustion contaminants in an enclosed space.</p>	12/23/2010	Rejected	Needs a panel of experts to review. This will require a major change in combustion safety. I suggest a combustion summit.
256	Ted A. Williams	DC	2.4.3	Delete section in its entirety or provide an exception for gas-fired appliances installed and inspected in accordance to the National Fuel Gas Code (NFPA) (ANSI Z223.1/NFPA 54 - 2009 edition), Section 9.3, "Air for Combustion and Ventilation." The cited ASTM document is a standard test guide and does not establish depressurization limits applicable to gas-fired appliances as the reference implies. In fact, there are no national consensus standard depressurization limits for proper venting of gas-fired appliances. The cited ASTM standard guide described the diverse outcomes that result for setting of depressurization limits and individual appliance installation conditions and a weakness of the procedure in not actually testing appliance operation (Section 8.6 Results and Interpretations). Proper installation for venting and combustion should be based on review of the installation in accordance with the NFPA. Requirements under this national consensus standard have never been shown to be insufficient for achieving and maintaining proper operation and venting of properly installed gas-fired appliances.	1/7/2011	Rejected	Needs a panel of experts to review. This will require a major change in combustion safety. I suggest a combustion summit.
257	Joe Hall	CO	2.4.3	only important on open combustion appliances, draft induced and sealed combustion appliances have a pressure switch, and drilling a hole in the vent would cause problems with some building officials. Don't make a hole in a flue unless you can fill it up with an acceptable plug and you can make the hole without having the drillings fall into the motor.	1/7/2011	Rejected	Needs a panel of experts to review. This will require a major change in combustion safety. I suggest a combustion summit.
258	Frank Stanonik	VA	2.5.1	It is not necessary always to measure the CO production. If the appliance is venting properly, an initial visual inspection of the flame may be adequate to determine whether a CO measurement needs to be made. Also, it is not clear why this measurement is needed. Again, the reference to the ASTM E1998 standard is incorrect. It is not a standard for taking CO measurements in appliances.	1/7/2011	Rejected	Needs a panel of experts to review. This will require a major change in combustion safety. I suggest a combustion summit.
259	Ted A. Williams	DC	2.5.1	Delete section in its entirety or provide an exception for gas-fired appliances that are design certified to the applicable product ANSI Z21 standard. Carbon monoxide (CO) combustion performance and testing is a cornerstone of these standards and is addressed in a variety of operating and installation conditions (e.g., underfiring and overfiring) that are not accounted for in the currently proposed test. The Z21 standard combustion performance tests are more conservative than the proposed tests, making the proposed tests redundant with the design performance of design-certified gas-fired appliances. Also, the cited ASTM document is a standard test guide and does not establish CO emissions limits applicable to gas-fired appliances as the reference implies.	1/7/2011	Rejected	Needs a panel of experts to review. This will require a major change in combustion safety. I suggest a combustion summit.
260	Donald Prather	VA	2.5.1 Page 40	<p>Specification Section should be changed to read: For shared appliance venting draft should be tested by trained technicians utilizing Original Equipment Manufacturers data, the National Fuel Gas Codes (NFPA) 54 2009 and the 2009 ICC International Fuel Gas Code (IFGC), and the ASTM E1998-02(2007) guidelines in Appendix 4.</p> <p>Reason: CO combustion testing does not have an individual HVAC industry recognized standard practice or procedure that can be universally applied. Testing to make sure that furnaces, water heaters, and boilers are operating safely should be done by trained technicians utilizing the original equipment manufacturers installation instructions and venting design requirements in conjunction with all applicable local and national gas codes. Additionally, for some equipment types, 5 minutes may not be a long enough run time to safely assess the combustion process. Simplified testing procedures do not take into account variable speed burner positioning and the related combustion efficiencies.</p>	12/23/2010	Rejected	Needs a panel of experts to review. This will require a major change in combustion safety. I suggest a combustion summit.
261	Ted A. Williams	DC	2.5.2	Delete section in its entirety or provide an exception for gas-fired cooking stove and ovens that are design certified to the ANSI Z21.1 Standard covering these products. Carbon monoxide (CO) combustion performance and testing is a cornerstone of this standard and is addressed in a variety of operating and installation conditions that are not accounted for in the currently proposed test. The Z21.1 Standard combustion performance tests are more conservative than the proposed tests, making the proposed tests redundant with the design performance of design-certified gas-fired cooking products. Adequacy of these performance requirements have been borne out in testing of natural gas-fired cooktops and ovens conducted by the U. S. Consumer Product Safety Commission (CPSC), which included performance testing outside of recommended product use. Also, the cited ASTM document is a standard test guide and does not establish CO emissions limits applicable to gas-fired appliances as the reference implies.	1/7/2011	Rejected	Needs a panel of experts to review. This will require a major change in combustion safety. I suggest a combustion summit.
262	Joe Hall	CO	2.5.2	some ovens will take 10 min. to reach steady state. if they are dirty they will produce CO. I is great if the client is there while you are doing it as it will drive home the need to ventilate. I'm glad there is no range top testing it is a waste of time as there will be impingement and CO as soon as a pan is introduced.	1/7/2011	Rejected	Needs a panel of experts to review. This will require a major change in combustion safety. I suggest a combustion summit.
263	Frank Stanonik	VA	2.6.1	Gas pipes and connections need only be checked for leaks when the piping or connection is modified during the energy upgrade. It would be sufficient to specify that leak checks shall be done in accordance with the National Fuel Gas Code.	1/7/2011	Rejected	Needs a panel of experts to review. This will require a major change in combustion safety. I suggest a combustion summit.
264	Frank Stanonik	VA	2.7.1	This specification should address gas and kerosene unvented appliances separately. The standards and codes structure that exists for each of these fuel types is very different and the specification should reflect this. The recommendation to remove unvented space heaters is wrong on several levels as it applies to gas-fired vent free heaters and fireplaces. There is no rational justification for removing a properly installed and properly operating gas-fired vent free heater or fireplace. If there is a problem with the installation or operation it should be repaired, if possible. The only situation where a suggestion to remove the unit would be appropriate is in the case where the existing gas-fired vent-free appliance is so old that it does not incorporate an Oxygen Depletion Sensing (ODS) safety system. In that case the recommendation should be to replace the unit with a new gas-fired vent-free appliance complying with the Z21.11.2 safety standard. It is contradictory in this document about energy upgrades to recommend the replacement of a properly working appliance that is practically 100% efficient. Also, the "combustion byproducts" of properly installed and properly operating gas-fired vent free heaters or fireplaces are at very low levels. An unjustified mandate to remove all unvented space heaters is countered by the millions of gas-fired vent free heaters or fireplaces currently being used to provide safe and efficient heat to American consumers.	1/7/2011	Rejected	Needs a panel of experts to review. This will require a major change in combustion safety. I suggest a combustion summit.
265	Ted A. Williams	DC	2.7.1	Delete section in its entirety or provide an exception for gas-fired unvented space heaters that are design certified to the ANSI Z21.11.2 Standard covering these products and sized and installed according to this standard. Restriction of installation of unvented space heaters is governed by state and local laws and codes currently. The proposed removal of these products would be in conflict with jurisdictions currently permitting their installation. This restriction would also create hardship for occupants who rely upon these devices as a source of supplemental heat. The current proposal provides no subsidy to occupants for remedial actions to supplemental heating, incentivizing wasteful and possibly unsafe spot heating approaches. More proactively, the Specifications should incentivize replacement of older unvented space heaters lacking major safety, design certification-required features including oxygen depletion sensor-based shutoff systems with newer models that incorporate these features.	1/7/2011	Rejected	Needs a panel of experts to review. This will require a major change in combustion safety. I suggest a combustion summit.
266	Frank Stanonik	VA	2.8.1	The proper procedure for determining whether adequate combustion air is being provided to an appliance is to follow the specifications of the National Fuel Gas Code. That code has been in use for over 50 years and represents the best collective knowledge of industry experts on the proper installation of gas appliances. We do not agree with the reference to the Building Performance Institute (BPI) protocol. That BPI protocol is not a national consensus standard. AHRI had no involvement in the development of the CAZ protocol and to our knowledge no gas or oil appliance manufacturers had any significant participation in the development of that procedure.	1/7/2011	Rejected	Needs a panel of experts to review. This will require a major change in combustion safety. I suggest a combustion summit.
267	Mark Krebs	MO	2.8.1	<p>The same concerns provided under 1.1.1 regarding the inappropriateness of the BPI protocol or equivalent apply equally here. Likewise, the term CAZ combustion safety testing and it related footnote 26 is inadequate. Is footnote 26 the only CAZ combustion safety testing methodology or the only equivalent?</p> <p>A Google search of the term CAZ combustion safety testing provided a link to one web site for a BPI adherent who advocated for a worst case scenario test. It is left to the imagination of what that might entail. Under such nebulous definitions, it is possible that proper appliance drafting could be forced to malfunction.</p> <p>Footnote 27 under Annex H provides an appropriate methodology rather than the language presently provided under Section 2.8.1</p>	1/5/2011	Rejected	Needs a panel of experts to review. This will require a major change in combustion safety. I suggest a combustion summit.
268	Ted A. Williams	DC	2.8.1	Delete section in its entirety or provide an exception for gas-fired appliances installed and inspected in accordance to the National Fuel Gas Code (NFPA) (ANSI Z223.1/NFPA 54 - 2009 edition), Section 9.3, "Air for Combustion and Ventilation." Requirements under this national consensus standard have never been shown to be insufficient for achieving and maintaining proper operation and venting of properly installed gas-fired appliances. In contrast, the cited BPI protocol is not a national consensus standard method for appliance testing. AGA is aware of various studies applying these procedures and their predecessors for depressurization testing of atmospheric appliances, but no technical justification is provided for employing this ad hoc procedure or verifying additional occupant safety or health benefits over proper installation in accordance to the ANSI standards. In fact, the BPI methodology implements a strong bias against installation of gas-fired appliances since renovation contractors, faced with a risk of failing the BPI test for atmospheric vent appliances, have little opportunity for incorporating cost-effective mitigation in the building envelope or replacement with another atmospheric unit that might also fail. The cited ASTM document is a standard test guide and does not establish requirements for implementation of the BPI methodology to gas-fired appliances as the reference implies. In fact, there are no national consensus standard depressurization limits for proper venting of gas-fired appliances. The cited ASTM standard guide described the diverse outcomes that result for setting of depressurization limits and individual appliance installation conditions and a weakness of the procedure in not actually testing appliance operation (Section 8.6 Results and Interpretations).	1/7/2011	Rejected	Needs a panel of experts to review. This will require a major change in combustion safety. I suggest a combustion summit.
269	Donald Prather	VA	2.8.1 Page 44	<p>Specifications Section should be changed to read: Testing to make sure that gas appliances are operating safely, combustion testing should be done by trained technicians utilizing the Original Equipment Manufacturers (OEM) installation instructions and venting design requirements in conjunction with all applicable local and national gas codes.</p> <p>Reason: CO combustion testing does not have an individual HVAC industry recognized standard practice or procedure that can be universally applied. Testing to make sure that furnaces, water heaters, and boilers are operating safely should be done by trained technicians utilizing the original equipment manufacturers installation instructions on combustion testing in conjunction with all applicable local and national gas codes. Combustion Appliance Zone Test (CAZ) is not in the glossary and has no individual HVAC industry recognized standard definition.</p>	12/23/2010	Rejected	Needs a panel of experts to review. This will require a major change in combustion safety. I suggest a combustion summit.

ID	Name	State	Section	Comment	Date	Status	Response
270	Ted A. Williams	DC	2.8.2	Clarify that this provision only applies to gas-fired appliances and that the correct citation for National Fuel Gas Code (NFGC) (ANSI Z223.1/NFPA 54 - 2009 edition) requirements is Section 9.3, "Air for Combustion and Ventilation" and that these requirements pertain to adequate air for both combustion and venting, not just for combustion. Retitle the section, "Required air for combustion and venting."	1/7/2011	Rejected	Needs a panel of experts to review. This will require a major change in combustion safety. I suggest a combustion summit.
271	Ted A. Williams	DC	2.8.3	Delete section in its entirety or provide an exception for gas-fired appliances installed and inspected in accordance to the National Fuel Gas Code (NFGC) (ANSI Z223.1/NFPA 54 - 2009 edition), Section 9.3, "Air for Combustion and Ventilation." NFGC requirements in this section cover air for combustion and venting are comprehensive and, as minimum requirements for safe installation and operation of gas-fired appliances, provide adequate air for these purposes without providing remedial or supplemental requirements. No ANSI or NFPA "guidelines" exist for gas-fired appliance for remedial or supplemental requirements, as the currently proposed text suggests.	1/7/2011	Rejected	Needs a panel of experts to review. This will require a major change in combustion safety. I suggest a combustion summit.
272	Ted A. Williams	DC	2.8.4	The currently proposed requirement is in conflict with the cited carbon monoxide (CO) alarm standard, NFPA Standard 720, which in its most recent edition cites the need to install CO alarms based on promulgation of state or local requirements. As such, consensus standard requirements of installation of CO alarm and detector are governed by state and local laws and codes currently. Additionally, the guidance is in conflict with the International Residential Code, which has specific alarm installation requirements. No justification is provided for this potential variance from local jurisdictional authorities, authorized by national consensus standards and adoption of model codes. Also, no explanation of an "occupant health" benefit been proposed for this measure. In fact, the guidance is likely to mislead renovation contractors and occupants that installation of these devices will ensure protection of occupants from unhealthful levels of CO. As CPSC has documented, the role of these devices is to protect life safety of occupants by only alarming at levels before which occupants might become unable to evacuate. These are the alarm levels set by the national consensus standard for CO alarms, Underwriters Laboratories (UL) Standard 2034. If the specifications are encouraging installation of other, IAQ-oriented alarm devices, the current language does not say so, and any such devices would not be recognized as approved to a national consensus standard. As such, they would not be recognized by building code officials. Finally, the currently proposed requirement would only apply to occupancies with "non-sealed direct vent appliances." This terminology is not consistent with current technical descriptions of combustion appliances. As such, it is vague and unenforceable. Furthermore, the intent presumes that only permanently installed appliances represent the sole CO hazard of concern. In fact, most CO fatalities are due to automobiles (including garaged vehicles) and portable power equipment, the latter category representing the only increasing source of CO fatalities in unintentional, non-fire domestic fatalities. Occupants of building on incorporating combustion appliances intended to trigger this requirement would not be protected, even though they would be at higher risk of fatal poisoning.	1/7/2011	Rejected	Needs a panel of experts to review. This will require a major change in combustion safety. I suggest a combustion summit.
273	Mark Krebs	MO	2.9.1	Basically Section 2.9.1 suffers from the same problems as those previously discussed under 2.8.1. Therefore, these concerns apply equally here.	1/5/2011	Rejected	Needs a panel of experts to review. This will require a major change in combustion safety. I suggest a combustion summit.
274	Ted A. Williams	DC	2.9.1 & 2.9.3	See my comment on 2.8.1. Orphaned water heaters do not involve unique considerations here.	1/7/2011	Rejected	Needs a panel of experts to review. This will require a major change in combustion safety. I suggest a combustion summit.
275	Donald Prather	VA	2.9.1 Page 45	Specifications section wording should be changed to: Testing to make sure that gas appliances are operating safely, combustion testing should be done by trained technicians utilizing the Original Equipment Manufacturers data, the National Fuel Gas Codes (NFPA) 54 2009 and the 2009 ICC International Fuel Gas Code (IFGC) and with guidance from ASTM E1998-02(2007). Reason: CO combustion testing does not have an individual HVAC industry recognized standard practice or procedure that can be universally applied. Testing to make sure that furnaces, water heaters, and boilers are operating safely should be done by trained technicians utilizing the original equipment manufacturers installation instructions on combustion testing in conjunction with all applicable local and national gas codes. Combustion Appliance Zone Test (CAZ) is not in the glossary and has no individual HVAC industry recognized standard definition. The BPI protocol is not a recognized combustion performance standard in the HVAC industry.	12/23/2010	Rejected	Needs a panel of experts to review. This will require a major change in combustion safety. I suggest a combustion summit.
276	Mark Krebs	MO	2.9.3	Our concerns and comments are essentially the same as those submitted under Section 2.9.1. Therefore, they apply here equally.	1/5/2011	Rejected	Needs a panel of experts to review. This will require a major change in combustion safety. I suggest a combustion summit.
277	Donald Prather	VA	2.9.3 Page 45	Specifications Section wording should be changed to: Testing to make sure that gas appliances are operating safely, combustion testing should be done by trained technicians utilizing the Original Equipment Manufacturers data, the National Fuel Gas Codes (NFPA) 54 2009 and the 2009 ICC International Fuel Gas Code (IFGC) and with guidance from ASTM E1998-02(2007). Reason: CO combustion testing does not have an individual HVAC industry recognized standard practice or procedure that can be universally applied. Testing to make sure that furnaces, water heaters, and boilers are operating safely should be done by trained technicians utilizing the original equipment manufacturers installation instructions on combustion testing in conjunction with all applicable local and national gas codes. Combustion Appliance Zone Test (CAZ) is not in the glossary and has no individual HVAC industry recognized standard definition. The BPI protocol is not a recognized combustion performance standard in the HVAC industry.	12/23/2010	Rejected	Needs a panel of experts to review. This will require a major change in combustion safety. I suggest a combustion summit.
278	Ted A. Williams	DC	2.9.4	See my comment on 2.8.2. Orphaned water heaters do not involve unique considerations here.	1/7/2011	Rejected	Needs a panel of experts to review. This will require a major change in combustion safety. I suggest a combustion summit.
279	Ted A. Williams	DC	2.9.5	See my comment on 2.8.3. Orphaned water heaters do not involve unique considerations here.	1/7/2011	Rejected	Needs a panel of experts to review. This will require a major change in combustion safety. I suggest a combustion summit.
280	Ted A. Williams	DC	2.9.6	See my comment on 2.8.4. Orphaned water heaters do not involve unique considerations here.	1/7/2011	Rejected	Needs a panel of experts to review. This will require a major change in combustion safety. I suggest a combustion summit.
281	Donald Prather	VA	3.1.3 Page 82	3.1.3 Should be deleted Reason: Prescriptive requirement description as written will not meet the objective of providing whole house air exchange and/or providing make up air. Register location should take into account the design of the house and a simple statement will preclude many options that may be better for specific locations. If the section remains: ASHRAE 62.2 2010 and ANSI/ACCA5 -- 2010 QI HVAC Quality Installation Specification need to be specified rather than the prescriptive language.	12/23/2010	Rejected	Needs to go to a ventilation expert
282	Charlotte Brody	VA	3.1.7	Here and throughout this section, cites need to be provided that help the reader identify low VOC and less toxic sealants. 3.18 Should be deleted	1/4/2011	Rejected	This guidance is important. Not sure it should be in the standards.
283	Donald Prather	VA	3.1.8 Page 94	Reason: Requirements will be covered in previous supply fan sections if the changes previously recommended by ACCA are adopted. For example: Section 3.18.4 the intake will not terminate on the roof would be covered in the recommended codes.	12/23/2010	Rejected	Needs to go to a ventilation expert
284	Donald Prather	VA	3.10.3 Page 77	Specification should be changed to read: Individual draft venting should designed utilizing Original Equipment Manufacturers data and must comply with the National Fuel Gas Codes (NFPA) 54 2009 and the 2009 ICC International Fuel Gas Code (IFGC) and all local code requirements. Reason: Prescriptive requirement description as written will not meet the objective. 3.12 Should be deleted	12/23/2010	Rejected	Needs a panel of experts to review. This will require a major change in combustion safety. I suggest a combustion summit.
285	Donald Prather	VA	3.12 Page 80	Reason: Requirements will be covered in previous exhaust fan sections if the changes previously recommended by ACCA are adopted. For example: Section 3.12.1 removal of back draft dampers is excluded in other exhaust fan sections but cool climate design considerations are covered in the recommended codes.	12/23/2010	Rejected	Don't have recommendations by ACCA
286	Gary Crow	FL	3.19.1	Why was the option for Continuous Kitchen Ventilation (5 ach) omitted from this document? Continuous Kitchen Ventilation is an acceptable option - ASHRAE 62.2 2010 table 5.2	1/5/2011	Rejected	Needs to go to a ventilation expert
287	Gary Crow	FL	3.19.2	Why was the option for Continuous Kitchen Ventilation (5 ach) omitted from this document? Continuous Kitchen Ventilation is an acceptable option - ASHRAE 62.2 2010 table 5.2	1/5/2011	Rejected	same as above
288	Shelley Kawamura	CO	3.21.2	Spot fans should be recommended for home offices (with copy machines), indoor spa/pool areas and hobby/work areas where VOCs may be present 3.25 Should be deleted	1/7/2011	Rejected	This sounds like a good suggestion. We need to pull together "experts" to think about the ramifications.
289	Donald Prather	VA	3.25 Page 110	Reason: Requirements are covered in previous sections referring to ASHRAE 62.2 and other standards if the changes previously recommended by ACCA are adopted.	12/23/2010	Rejected	Needs to go to a ventilation expert

ID	Name	State	Section	Comment	Date	Status	Response
290	Gary Crow	FL	3.5.5	ASTM C1193-09 - "Standard Guide for Use of Joint Sealants" I believe that modifying the housing of a UL/CSA/ETL tested product is a misapplication of ASTM C1193-09. This is especially relevant to fan/light and fan/heater/light combination units. All of these units are tested for maximum temperatures of the housing as well as the internal components of the fan. If you add sealant to the fan housing you are changing the housings ability to transfer heat and could create a fire hazard.	1/5/2011	Rejected	This sounds right. What does the standards say?
291	Gary Crow	FL	3.7.7	Is R-8 necessary in any or all climates? Why can the fan housing be without insulation when the duct work is required to be insulated? Won't condensate form on a fan housing? What type of "direct vent" would run continuously?	1/5/2011	Rejected	Needs to go to a ventilation expert. The fan running will keep the housing above dewpoint during run time
292	Gary Crow	FL	3.8.7	A minimum of R-8 for exhaust ducts is extreme. We should only be concerned with condensation forming. Insulated flex with an R-4.2 is successfully used in cold climates. Back draft dampers (located close to the conditioned space) are also typically required in cold climates. Why can the fan housing be without insulation when the duct work is required to be insulated? Won't condensate form on a fan housing? The fan should be designed to prevent condensation from forming on the fan.	1/5/2011	Rejected	Needs to go to a ventilation expert
293	Shelley Kawamura	CO	4.1.2	Should include verbiage about working with spray foams that contain isocyanates -- need to stress appropriate respiratory and skin protection	1/7/2011	Rejected	Inserted place holder at 4.1.2. We need to develop appropriate language.
294	Kevin Frankosky	DE	4.16.3	The installation requirements of IC and Non-IC fixtures was developed before the introduction and wide use of expanding spray foam and cellululos materials. Even IC rated lights can generate temperatures of nearly 200 degrees farenheit. Long term direct direct contact of either the expanding foam or cellululos insulation materials can pose a potential fire risk. It would be advisable to have a physical seperation of the insulating materials from the light fixture through the use of a know fire resistant barrier to keep the insulation from getting in contact with all recessed light fixtures. Cardboard and plastic should be banned since they are not fire resistant per International Standard Test (IEC 60598).	1/3/2011	Rejected	Needs to be consider in foam section. Cellulosis is not a problem
295	Kevin Frankosky	DE	4.17.5	The installation requirements of IC and Non-IC fixtures was developed before the introduction and wide use of expanding spray foam and cellululos materials. Even IC rated lights can generate temperatures of nearly 200 degrees farenheit. Long term direct direct contact of either the expanding foam or cellululos insulation materials can pose a potential fire risk. It would be advisable to have a physical seperation of the insulating materials from the light fixture through the use of a know fire resistant barrier to keep the insulation from getting in contact with all recessed light fixtures. Cardboard and plastic should be banned since they are not fire resistant per International Standard Test (IEC 60598).	1/3/2011	Rejected	Needs to be consider in foam section. Cellulosis is not a problem
296	Shelley Kawamura	CO	4.22.1	In addition to EPA RRP, recommend adding lead-dust clearance test post-window installation	1/7/2011	Rejected	Need to consult with Lead experts & EPA
297	Matthew Hansen	MI	4.4.2	Footnote 20 refers to only the ASTM material standard for Latex Sealants. This excludes entire product line options such as latex or polyurethane foam sealants. Foam sealants are used broadly throughout the industry for air sealing and energy upgrades. Any reference to ASTM C834-10 should also reference ASTM C1620-05.	1/7/2011	Rejected	reviewer is not familiar with this ASTM standard, so he cannot comment on this item. If foam sealants are used, fire codes must be respected.
298	Dona Stankus	NC	4.4.2	I picked this as an example only for a general observation. If this Guide is meant to be user friendly in the field, first it is too big, second, there is a lack of specificity that is needed (these may be contained in referenced standards but it is obtuse generally in the document). Backing and infill should ready more like "Backing and infill of holes, gaps, etc." Also, where it states that "The infill or backing will not bend sag or move once installed." There is no tolerance given. Is the intent not to allow a tolerance? What is the referenced standard of tolerance if there is one? No description is contained in the glossary.	1/7/2011	Rejected	
299	Jim Melesky	PA	4.8.3	The existing wording specifies weather stripping which is only one form of air sealing. I recommend changing the wording to air sealing and make it consistent with the wording in the 2009 Edition of the IECC 402.4.1 "caulked, gasketed, weatherstripped or otherwise sealed with an air barrier material, suitable film or solid material" Insulation over the stairwell under option 1 should specify that the insulation is non compressible. This is consistent with 402.2.3 of the 2009 IECC. The 2009 IECC standards for the attic accesses should be included in all the sections pertaining to the attic access measures. Prior to the 2009 edition of the IECC and IRC, which now apply to additions, alterations, renovations or repairs (101.4.3 of IECC, there was no minimum standard for remediation of any attic entrance. The latest edition confirms the building science rationale for proper remediation measures for all attic entrances.	1/4/2011	Rejected	Standards
300	Donald Prather	VA	5.12 Page 210	Reason: Requirements will be covered in previous supply fan sections if the changes previously recommended by ACCA are adopted. For example: Section 5.2 covers all possible design requirements if changes recommended by ACCA were accepted.	12/23/2010	Rejected	Don't have ACCA recommendations
301	Donald Prather	VA	5.13.1 Page 211	Recommend changing specification section to read: Carbon Monoxide will be tested in accordance with OSHA safety procedures Reason: The BPI standard is a single prescriptive method that do not include other HVAC industry recognized methodologies.	12/23/2010	Rejected	Needs a panel of experts to review. This will require a major change in combustion safety. I suggest a combustion summit.
302		PA	5.15.3	For combustion appliance venting systems that fail, allowable to install mechanical ventilation?	1/6/2011	Rejected	Needs expert review
303	Frank Stanonik	VA	5.21.4	The reference to ASHRAE 62.2 in the specification for row 4 is wrong. The operative standards for the combustion air inlets for gas and oil-fired appliances are the National Fuel Gas Code and NFPA 31, respectively.	1/7/2011	Rejected	ASHRAE standard reference was removed. Reference to other standards should be considered.
304	Donald Prather	VA	5.23 Page 230	Reason: Requirements will be covered in previous supply fan sections if the changes previously recommended by ACCA are adopted. For example: The ANSI/ACCA 5 -- 2010 QI HVAC Quality Installation Specification covers all possible refrigerant charging possibilities and requirements if changes recommended by ACCA were accepted.	12/23/2010	Rejected	Needs to go to a HVAC expert
305	Donald Prather	VA	5.3.8 Page 189	5.3.8 Should be deleted Reason: If proper system design and installation practices are followed (changes to earlier sections recommended by ACCA) the grill size will be designed properly and will operate properly.	12/23/2010	Rejected	Don't have ACCA recommendations
306	Frank Stanonik	VA	5.31.6	The specification in row 6 is unnecessary here. Specifications for checking any atmospherically vented appliance are already addressed in several other subtopics.	1/7/2011	Rejected	Needs a panel of experts to review. This will require a major change in combustion safety. I suggest a combustion summit.
307	Frank Stanonik	VA	5.39.1	In addition to our concerns about the actual protocol and its limited applicability, there is no reason for specifying an annual CAZ test. As we have noted Annex H in the 2007 edition of the National Fuel Gas Code (ANSI Z223.1/NFPA 54) provides a thorough and adequate recommended procedure for the safety inspection of existing appliance installations.	1/7/2011	Rejected	Needs a panel of experts to review. This will require a major change in combustion safety. I suggest a combustion summit.
308	Mark Krebs	MO	5.39.1	Our concerns and comments are essentially the same as those submitted under Section 2.10.4. Therefore, they apply here equally.	1/5/2011	Rejected	Needs a panel of experts to review. This will require a major change in combustion safety. I suggest a combustion summit.
309	Donald Prather	VA	5.39.1 Page 256	Specifications section wording should be changed to: Testing to make sure that gas appliances are operating safely, combustion testing should be done by trained technicians utilizing the Original Equipment Manufacturers data, the National Fuel Gas Codes (NFPA) 54 2009 and the 2009 ICC International Fuel Gas Code (IFGC) and with guidance from ASTM E1998-02(2007). Reason: CO combustion testing does not have an individual HVAC industry recognized standard practice or procedure that can be universally applied. Testing to make sure that furnaces, water heaters, and boilers are operating safely should be done by trained technicians utilizing the original equipment manufacturers installation instructions on combustion testing in conjunction with all applicable local and national gas codes. Combustion Appliance Zone Test (CAZ) is not in the glossary and has no individual HVAC industry recognized standard definition. The BPI protocol is not a recognized combustion performance standard in the HVAC industry.	12/23/2010	Rejected	Needs a panel of experts to review. This will require a major change in combustion safety. I suggest a combustion summit.
310	Frank Stanonik	VA	5.39.3	The inclusion of this specification is odd. Gas valve removal is not part of a normal annual service for a boiler or any other gas appliance. This specification should be deleted.	1/7/2011	Rejected	Needs boiler expert review
311	Donald Prather	VA	5.39.7	Specifications section wording should be changed to: Testing to make sure that gas appliances are operating safely, combustion testing should be done by trained technicians utilizing the Original Equipment Manufacturers data, the National Fuel Gas Codes (NFPA) 54 2009 and the 2009 ICC International Fuel Gas Code (IFGC) and with guidance from ASTM E1998-02(2007). Reason: Prescriptive language will not result in the objective being achieved. For Example NATE does not have a test procedure for combustion testing and the BPI procedure is not universally recognized by the HVAC industry.	12/23/2010	Rejected	Needs a panel of experts to review. This will require a major change in combustion safety. I suggest a combustion summit.
312	Mark Krebs	MO	5.39.7	It is now become a reoccurring theme that any and all "accepted protocol (e.g., BPI, NATE)" should be fully provided as required references for evaluating their appropriateness in this proceeding. As they are not provided, they should not be deemed appropriate.	1/5/2011	Rejected	I agree with the reviewer.
313	Frank Stanonik	VA	5.39.8	Row 8 should be deleted in its entirety. It is overly simplistic to specify that all non-modulating, non-condensing boilers must be de-rated. This specification is fundamentally flawed in that it ignores one very significant information source, which is the boiler manufacturer. We do not believe that this is a subject that is appropriate for this document on energy upgrades.	1/7/2011	Rejected	Needs boiler expert review

ID	Name	State	Section	Comment	Date	Status	Response
314	Donald Prather	VA	5.39.8 Page 258	5.39.8 Should be deleted Reason: Prescriptive language will not result in the objective being achieved. For Example NATE does not have a test procedure for combustion testing and the BPI procedure is not universally recognized by the HVAC industry and will not work as specified on all equipment types.	12/23/2010	Rejected	Needs a panel of experts to review. This will require a major change in combustion safety. I suggest a combustion summit.
315	Frank Stanonik	VA	5.40.1	In addition to our concerns about the actual protocol and its limited applicability, there is no reason for specifying a CAZ test as part of normal maintenance. As we have noted Annex H in the 2007 edition of the National Fuel Gas Code (ANSI Z223.1/NFPA 54) provides a thorough and adequate recommended procedure for the safety inspection of existing appliance installations.	1/7/2011	Rejected	Needs a panel of experts to review. This will require a major change in combustion safety. I suggest a combustion summit.
316	Donald Prather	VA	5.40.1 Page 259	Specifications section wording should be changed to: Testing to make sure that gas appliances are operating safely, combustion testing should be done by trained technicians utilizing the Original Equipment Manufacturers data, the National Fuel Gas Codes (NFPA) 54 2009 and the 2009 ICC International Fuel Gas Code (IFGC) and with guidance from ASTM E1998-02(2007). Reason: CO combustion testing does not have an individual HVAC industry recognized standard practice or procedure that can be universally applied. Testing to make sure that furnaces, water heaters, and boilers are operating safely should be done by trained technicians utilizing the original equipment manufacturers installation instructions on combustion testing in conjunction with all applicable local and national gas codes. Combustion Appliance Zone Test (CAZ) is not in the glossary and has no individual HVAC industry recognized standard definition. The BPI protocol is not a recognized combustion performance standard in the HVAC industry.	12/23/2010	Rejected	Needs a panel of experts to review. This will require a major change in combustion safety. I suggest a combustion summit.
317	Donald Prather	VA	5.40.18 Page 265	Recommend that testing to make sure that boilers are operating safely should be done by trained technicians utilizing the original equipment manufacturers installation instructions and venting design requirements in conjunction with all applicable local and national gas codes. Reason: Some nationally recognized tests incorrectly state that the EPA and ASHRAE allow 9ppm of CO in a residential environment. The 9ppm is for an 8 hour exposure in a work environment where it is assumed the worker will leave thus allowing the CO level in the blood stream to reduce over the 16 hours in a day. CO levels should be less than 5ppm and preferably at 0ppm for residential living space.	12/23/2010	Rejected	Needs to be considered by expert panel
318	Roger Mitchell	ME	5.6.4	This secondary safety device requirement is not found in NFPA #54 as referenced. Indoor propane piping installed below grade is not required to have this type of device. Specifications section: Define when to call 911 or remove the sentence		Rejected	Need expert consideration
319	Donald Prather	VA	6.1.11 Page 273	Reason: Directions not clear	12/23/2010	Rejected	Developing (finding) specific guidance will strengthen the document.
320	Robert De Vries	MI	6.1.13	With a better than 60% likelihood that the vermiculite contains asbestos what is the point of having it tested? Just assume that it has asbestos and encapsulate it in insulation. This section makes it look like the vermiculite must be abated, that will consume the entire WX budget for the project needlessly.	12/2/2010	Rejected	Sounds like a reasonable suggestion. Need to consult with the experts
321	Jeremy King C.E.M.	VT	6.1.13	Please specify what test procedure and contamination level is accepted by OSHA, VOSHA, DOE and others for testing vermiculite to determine if it is contaminated with asbestos.	1/5/2011	Rejected	Sounds like a reasonable suggestion. Need to consult with the experts
322	Shelley Kawamura	CO	6.1.2	Additional information should be given to ensure that workers are sufficiently protected when working with spray foam insulation since it is a leading cause of occupational asthma	1/7/2011	Rejected	Dangers associated with applications of spray foam products need to be reviewed
323	Shelley Kawamura	CO	6.1.4	Full personal protective gear (including appropriate respirator) should be used when working with spray foam insulation (including spraying, scraping and clean-up)	1/7/2011	Rejected	Dangers associated with applications of spray foam products need to be reviewed
324	Kevin Frankosky	DE	6.2.1	The installation requirements of IC and Non-IC fixtures was developed before the introduction and wide use of expanding spray foam and cellulose materials. Even IC rated lights can generate temperatures of nearly 200 degrees Fahrenheit. Long term direct contact of either the expanding foam or cellulose insulation materials can pose a potential fire risk. It would be advisable to have a physical separation of the insulating materials from the light fixture through the use of a know fire resistant barrier to keep the insulation from getting in contact with all recessed light fixtures.	1/3/2011	Rejected	Needs to be consider in foam section. Cellulose is not a problem
325	Rupert Coggon	DE	6.2.2	The assumption that heat build up can be overcome purely by using an enclosure top of higher thermal conduction is incorrect, given the area created by the cover and differential temps then and the amount of heat required to be conducted then this cannot work and will lead to far greater temperature differentials ie heat build up than is safe according to IEC 60598 standards. Heat conduction is not an efficient method of heat removal. Having had many years of experience with Fire Investigators and International test labs, the only efficient method of heat removal is via a degree of air leakage ie using porous materials, these materials still maintain dust tightness and air leakage is kept well within air tightness limits. IP6 ratings can be maintained to ensure that no particle can come into contact with the hot lamp and thus fire is not possible. This is a well tried and proven method of preventing heat build up.	1/6/2011	Rejected	I don't know what IEC 60598 says.
326	Shelley Kawamura	CO	6.2.4	Provide appropriate respirator when working with spray foam insulation and specify low/no VOC sealants	1/7/2011	Rejected	Respirator language added. Use of low- or no-voc products needs further exploration.
327	Tim Daly	MD	6.3.3	It's been a long time ago, so maybe I'm out of date. But BPA and the electric utilities in the NW went round and round on the issue of knob-and-tube wiring. Finally, a method was devised that allowed for covering the K&T wiring. Otherwise, you leave out too many houses, especially in the older, lower-income, maybe rental category. Those folks need the weatherization the most and can least afford rewiring the house. You need to talk to BPA about its experience before this is set in stone.		Rejected	This needs to be carefully considered. Could have a very big impact.
328	Chris Stratton	CA	6.3.3	DOE policy on knob and tube is that retrofitters need to comply with state or municipal code with regard to insulating over knob and tube wiring (KTW). Some municipalities and some states (such as California, Washington, Oregon, Nebraska) allow insulation over KTW once certain conditions are met (inspection by electrician, no overloading, S type fuses or circuit breakers, etc.) This section should allow for (non-foam) insulation over KTW where local code permits it. Prohibiting it everywhere eliminates a huge number of older homes that would be cost-prohibitive to re-wire. Please see this document for reference: www.waptac.org/data/files/technical_tools/feck1159hspknobtube.docx	1/4/2011	Rejected	Same as above
329	Greg Nettleton	WI	6.3.3	"Live knob and tube will not be covered or surrounded (required NEC) A licensed electrical contractor will inspect and certify wiring to be safe and place a warning at all entries to the attic about the presence of knob and tube wiring." Cost to inspect and label may be better applied to removal/replacement of knob and tube wiring. Given substantial volume of suggested health and safety repairs, the practice of leaving this wiring in place while performing retrofit measures such as air sealing and insulating in the process of the retrofit work is counter to Wisconsin local WAP and retrofit standard/general practices of delivery. Leaving significant portions of attic or wall spaces un-insulated or without completing air sealing of large air leakage pathways could lead to building durability failures in roof or wall assemblies. These failures could cause damage to structure in excess of cost of upgrading of wiring. At a minimum, homeowner and/or occupant should be informed that they have an option, at own expense if not to be covered as part of WAP or utility efficiency work where applicable, to have the home rewired prior to receiving Weatherization or Home Performance Improvements.	1/7/2011	Rejected	Same as above
330	Jim Urtz	CT	6.3.3 and 6.3.4	found these to be a bit confusing. 6.3.3 states to place a dam between insulation being installed and existing knob and tube wiring. 6.3.4 states to have the knob and tube removed or rendered inoperable. If these are both options, it should state either/or somewhere. If they are not both options, these sections should be revised.	1/7/2011	Rejected	Same as above
331	Donald Prather	VA	6.9.1 Page 285	Specification should be changed to read: Testing to make sure that ventilation requirements for combustion appliances are operating safely and compatible with the specified insulation being considered. National Fuel Gas Codes (NFPA) 54 2009 and the 2009 ICC International Fuel Gas Code (IFGC) and all local code requirements must be met. Reason: Prescriptive requirement description as written will not meet the objective.	12/23/2010	Rejected	Needs a panel of experts to review. This will require a major change in combustion safety. I suggest a combustion summit.
332	Donald Prather	VA	7.12.4 Page 346	Specifications: Testing to make sure that combustion appliances are operating safely or removed properly, and all related combustion testing should be done by trained technicians utilizing the Original Equipment Manufacturers data, the National Fuel Gas Codes (NFPA) 54 2009 and the 2009 ICC International Fuel Gas Code (IFGC) and in compliance with all local codes. Reason: No specification or guidance given for ventilation safety	12/23/2010	Rejected	Needs a panel of experts to review. This will require a major change in combustion safety. I suggest a combustion summit.
333	Greg Nettleton	WI	7.2.3	Some residential codes now require a battery operated smoke detector to contain a ten year battery. This may be a more important requirement than displaying real time CO levels as a mechanism to ensure occupant safety long after completion of energy improvement work.	1/7/2011	Rejected	Need more info
334	Shelley Kawamura	CO	7.31.1	Specify rigid insulation that does not contain brominated flame retardants when possible	1/7/2011	Rejected	Need more info
335	Shelley Kawamura	CO	7.32.3	Specify rigid insulation materials that do not contain brominated flame retardants	1/7/2011	Rejected	Need more info

ID	Name	State	Section	Comment	Date	Status	Response
336	Greg Nettleton	WI	7.5.1	Radon testing and mitigation currently not a required component of Weatherization or Home Performance program delivery. Current local WAP program delivery, due to state level funding requirements, does not allow testing for hazard such as lead, mold, asbestos, or radon. Including this would be problematic, given present lack of funding source to complete this additional testing in Weatherization delivery. We propose requirement/recommendation of a client education piece like the EPA lead book, with occupant signing off upon receipt. The standard should leave radon testing to the individual occupant/homeowner where not offered as an additional service of installing contractor or agency.	1/7/2011	Rejected	There are some major issues here that need to be addressed by DOE and EPA.
				(continuation of previous comment) We believe there are a number of potential corrective actions and we recommend DOE ensure: * Workforce Guidelines for radon mitigation activities include requirement that persons performing that work be certified and/or licensed and have completed national and, where appropriate, state approved continuing education training on energy-efficient system design. * Said training should include, at a minimum, instruction on the following knowledge and hands-on skills, and that examinations following the training verify mastery of these skills: o Determination of optimal pressure field strength and extent for radon control and minimization of excess conditioned air loss and fan power consumption o Determination of system air flow required to produce optimal pressure field o Selection of appropriate system components and operational parameters * Verification of appropriate mitigation system operational parameters (i.e., strength and extent of pressure field) is a required component of post-upgrade building evaluation. * Ideally, a demonstration project be established to demonstrate the cost-effectiveness of energy-efficient radon mitigation. The radon training community already has the basic necessary training materials in CE course format, and could augment those materials very quickly if needed.			
337	Jack R. Hughes	GA	7.5.1	(continued in next comment)	1/7/2011	Rejected	There are some major issues here that need to be addressed by DOE and EPA.
				U.S. EPA Co-founded Regional Radon Training Centers' Comments on DOE Workforce Guidelines: Radon Mitigation Activities It is our understanding that DOE is relying on EPA to generate the specific provisions related to radon mitigation activities for inclusion in DOE's Workforce Guidelines for Home Energy Upgrades. We believe the presumption of acceptable energy efficiency of radon mitigation systems as often installed, or as installed per cited standards, is not justified. * Potential for excessive building energy consumption produced by radon mitigation system operation is well-documented, possibly amounting to hundreds of dollars per year. * The cited standard (ASTM E-2121) does not require energy-efficient design nor does it provide technical guidance on how to achieve it. A revision of E-2121, when finished, may include energy efficiency requirements, but it will not include technical guidance to achieve those requirements. * There is little effective enforcement of standards regardless of their content. * Initial certification or licensing training requirements for radon mitigators do not adequately address energy-efficient system design, so very few mitigators have necessary training. * Current market demand rewards lowest possible initial system cost and discourages better-designed systems with any increment of additional initial cost.			
338	Jack R. Hughes	GA	7.5.1	(continued in next comment)	1/7/2011	Rejected	There are some major issues here that need to be addressed by DOE and EPA.
				(continuation of previous comment) These steps would greatly increase the capability of mitigators performing mitigation activities, and would result in much more energy-efficient systems being installed in Home Energy Upgrade programs. Jack Hughes, Lead Trainer Southern Regional Radon Training Center, Auburn University maxgarlic@aol.com and William J. Angell, Professor and Director Midwest Universities Radon Consortium, University of Minnesota wangell@umn.edu on behalf of Jim Morris, Director Eastern Regional Radon Training Center, Rutgers University Jim Burkhart, Professor and Director Western Regional Radon Training Center, University of Colorado-Colorado Springs Bruce Snead, Director Midwest Universities Radon Consortium-KSU, Kansas State University			
339	Jack R. Hughes	GA	7.5.1		1/7/2011	Rejected	There are some major issues here that need to be addressed by DOE and EPA.
340		PA	8.14.1	Regarding discovery of hazardous material, is there a threshold, ie EPA?	1/6/2011	Rejected	Need to provide some guidance on this
341	Donald Prather	VA	8.17.1Page 429	Reference section should State: Testing to make sure that gas appliances are operating safely should be done by trained technicians utilizing the original equipment manufacturers installation instructions and venting design requirements in conjunction with all applicable local and national gas codes. NEC violations will be done following the national electrical Code and local code requirements by a licensed technician/contractor. Reason: NEC violations should be addressed by following the national electric code and local code requirements. Appliance Zone Test (CAZ) is not in the glossary and has no singular one size fits all HVAC industry recognized standard definition. Additionally, there are currently no HVAC industry wide universally accepted one size fits all combustion testing standards. Testing to make sure that gas appliances are operating safely should be done by trained technicians utilizing the original equipment manufacturers installation instructions and venting design requirements in conjunction with all applicable local and national gas codes. Some nationally recognized tests incorrectly state that the EPA and ASHRAE allow 9ppm of CO in a residential environment. The 9ppm is for an 8 hour exposure in a work environment where it is assumed the worker will leave thus allowing the CO level in the blood stream to reduce over the 16 hours in a day. CO levels should be less than 5ppm and preferably at 0ppm for residential living space.	12/23/2010	Rejected	Needs a panel of experts to review. This will require a major change in combustion safety. I suggest a combustion summit.
342	#N/A	#N/A	All of Chapter 4 (Pg. 114-171)	Delete all footnoted references to ASTM C1193 except footnote 77 in subsection 18.		Rejected	reviewer does not have expertise to comment here.
343	Ted A. Williams	DC	Appendix A	Delete "Conduct worst-case Combustion Appliance Zone (CAZ) testing," and "Remove or vent unvented space heaters." Rationale for these deletions is provided with specific comments on later sections covering these topics.	1/7/2011	Rejected	Needs a panel of experts to review. This will require a major change in combustion safety. I suggest a combustion summit.
344	Simone Lindenbaum	AL	Domain V	Occupant Education This section would detail the one on one conservation education that the energy auditor needs to do to actively engage the occupant(s) in changing their behavior to maximize energy savings. In energy conservation programs, this area is often overlooked. Yet occupant behavior is every bit as important in saving energy as all the equipment and other physical improvements to the home. Given our limited time, ECA would like to submit more detailed comments on this section in the coming weeks.	1/5/2011	Rejected	An excellent point. Inclusion of a section on occupant education should be considered, since the effectiveness of many of the measures could be impacted.

ID	Name	State	Section	Comment	Date	Status	Response
345	Jim Urtz	CT	general	Any place that it is suggested that a substance needs to be tested to find out if it contains asbestos, suggest adding the words "testing to be done by a qualified/licensed person" or similar.	1/7/2011	Rejected	Need to consider whether to include this kind of language, or reference specific protocols.
346	Jim Urtz	CT	general	- Use of appropriate respirators is mentioned throughout. Would like to see a reference to the respiratory standards set forth in OSHA 1910.134	1/7/2011	Rejected	Need to consult with our occupational safety panel
347	Jim Urtz	CT	general	References to electrical safety throughout. Would like to see a reference to subpart K in 29 CFR Part 1926	1/7/2011	Rejected	Need to consult with our occupational safety panel
348	Jim Urtz	CT	general	Confined space is referred to throughout. Would like to see a reference to OSHA 1910.146	1/7/2011	Rejected	Need to consult with our occupational safety panel
349	Jim Urtz	CT	general	Use of hand and power tools throughout. Would like to see a reference to Subpart I in 29 OSHA CFR Part 1926	1/7/2011	Rejected	Need to consult with our occupational safety panel
350	Jim Urtz	CT	general	Ladder safety not mentioned specifically enough. Would like to see a reference to Subpart X in 29 OSHA CFR Part 1926.	1/7/2011	Rejected	Need to consult with our occupational safety panel
351	Jim Urtz	CT	generally	Fall protection not mentioned specifically enough. Would like to see a reference to Subpart M in 29 OSHA CFR Part 1926.	1/7/2011	Rejected	Need to consult with our occupational safety panel
352	Darrell K. Winters	MS	health and safety, safe work practices	<p>Another difficulty in determining toxicity is the amount of data available. This criterion is problematic because toxicity varies given the application and environment in which it is used. Moreover, a determination of toxicity requires the existence of data. EERE continues to forget that there is disparity in the amount of health and safety (toxicity) data available on different substances. Under the EERE scenario, those materials/products without any toxicity data -- the result of limited product stewardship and limited investment in health and safety research - are given the benefit of the doubt, whereas the thoroughly researched product -- the ones most likely to be safe to use -- are given the disadvantage.</p> <p>Despite the complexity and difficulty of making toxicity determinations, EERE is attempting to impose upon material specifiers a task that even toxicologists would not be able to agree upon. Toxicologist might not even agree determine whether each item is toxic let alone determine which one is the most or least toxic. EERE should delete this language throughout the entire document and replace it with the requirement that products be thoroughly tested, with toxicity issues identified, and a comprehensive program of work practices and PPE recommendations on how to manage the risk.</p> <p>NAIMA COMMENT #22, PART 3</p>	1/7/2011	Rejected	Raises some fundamental questions about approach, which which need to be considered.
353	Darrell K. Winters	MS	health and safety, safe work practices	<p>Toxicity varies given the application and environment in which it is used. Toxicity is a multi-faceted phenomenon, and given the many variables that determine whether a particular substance is toxic under certain circumstances, trained toxicologists do not always agree that a particular substance is toxic. Nonetheless, EERE is attempting to impose upon material specifiers a task that even toxicologists would not be able to agree upon and that is determining what is most or least toxic. One difficulty in measuring toxicity is that not everyone agrees which kind of dose unit to compare. Some researchers measure the dose by total weight, some by the number of particles. Toxicity is also determined by the size of the dose, the duration of the dose, and intensity of the dose. In fact, there is a saying among toxicologists that whether something is poison is "all in the dosage." Does EERE think that it can address this major conundrum in the context of this program? Does EERE have the expertise and resources to support the myriad of toxicity determinations those experts will have to make? Certainly toxicity determinations cannot be left in the hands of those not trained in the subtleties and complexities of toxicology. Is EERE prepared for the legal challenges that will be lodged when toxicity determination are made by untrained or unqualified people? The impossibility of the performance of this requirement alone should persuade EERE to delete it.</p> <p>NAIMA COMMENT #22 PART 2</p>	1/7/2011	Rejected	Raises some fundamental questions about approach, which which need to be considered.
354	Darrell K. Winters	MS	health and safety, safe work practices	<p>The following language, "The least toxic suitable material will be chosen" should be deleted.</p> <p>Reason: Toxicity is the degree to which a substance can harm animals and humans. Toxicity depends upon many variable, including dosage, duration, and potency. For example, too much exposure to the sun, a known carcinogen, can cause cancer, yet sunlight is absolutely essential for survival of the human species. Similarly, ingesting too much water is the cause of multiple non-drowning deaths every year, yet taken in the right amount it is also absolutely essential for the survival of the human species.</p> <p>COMMENT CONTINUED IN NEXT COMMENT. FOR REFERENCE, NAIMA COMMENT #22 PART 1</p>	1/7/2011	Rejected	Raises some fundamental questions about approach, which which need to be considered.
355	Darrell K. Winters	MS	health and safety, safe work practices, 3) row 1	<p>2. Material Safety Data Sheet</p> <p>Manufacturers and employers are well aware of its obligations under the Occupational Safety and Health Administration's ("OSHA") Hazard Communication Standard. If they are not aware and are in violation of those HAZCOM requirements, OSHA has a record of vigorous enforcement. In fact, worker safety issues are under the jurisdiction of OSHA. Worker safety is not under the jurisdiction of EERE. Yet EERE is creating new language regarding MSDS availability that does not track with the language in the Hazard Communication Standard. This is potentially confusing, and it is certainly duplicitous. Manufacturers and employers have learned to carefully follow the mandate of the statutory and regulatory language created by OSHA and consult OSHA guidance documents when there are questions or uncertainties. Paraphrasing or generalizing OSHA requirements is not helpful. In fact, it is confusing and potentially burdensome. If EERE is concerned about safety compliance and MSDS compliance, it is suggested that a simple statement be added urging compliance with OSHA's Hazard Communication Standard and all other applicable regulations be followed. Please do not offer interpretative language on what MSDS or other workplace requirements apply.</p> <p>NAIMA COMMENT #23 PART 3</p>	1/7/2011	Rejected	Raises some fundamental questions about approach, which which need to be considered.
356	Darrell K. Winters	MS	health and safety, safe work practices, 3) row 1	<p>The following language, "Materials that do not create long-term health risks for occupants and workers will be used" should be deleted.</p> <p>Reason:</p> <p>1. Specification</p> <p>In the "Health and Safety" section, DOE's Energy Efficiency and Renewable Energy ("EERE") identifies specifications for material selection with the following language: "Materials that do not create long-term health risks for occupants and workers will be used." This type of specification becomes problematic in the context of the real world. There are many products/materials that have not conducted any risk analysis on its product. If such analysis has not been conducted, how can potential risks be disclosed and managed with safe work products. There is a dangerous assumption that an untested product or material is safe. How can a material's long-term health risk be evaluated when there is no data available, or the data that is available is limited and inadequate? The answer is simple. That risk cannot be calculated. More importantly, the risk cannot be properly managed with appropriate work practice or recommended personal protective equipment. Therefore, EERE should require in its specification that materials/products have been thoroughly tested and analyzed and that where there is a risk that that risk can be adequately managed.</p> <p>NAIMA COMMENT #23, PART 1. CONTINUED IN NEXT COMMENT.</p>	1/7/2011	Rejected	Raises some fundamental questions about approach, which which need to be considered.
357	Darrell K. Winters	MS	health and safety, safe work practices, 3) row 1	<p>EERE's current language discourages product stewardship and rewards those products/materials that have failed to or intentionally neglected to test their products. That such products exist is effectively illustrated by Dr. JMG Davis' call for testing and analysis of certain insulation materials and his strong warning that "some fibre products are being manufactured and promoted as safe when this really means that they are untested."1 Untested does not mean safe. Evidence of product stewardship, extensive testing, and comprehensive work practices should be required for products specified. EERE current language is inviting serious problems.</p> <p>1 JMG Davis, "The need for standardized testing procedures for all products capable of liberating respirable fibres: the example of materials based on cellulose," British Journal of Industrial Medicine, 1993; 50:187-190 at p. 187.</p> <p>NAIMA COMMENT #23, PART 2. CONTINUED IN NEXT COMMENT.</p>	1/7/2011	Rejected	Raises some fundamental questions about approach, which which need to be considered.

ID	Name	State	Section	Comment	Date	Status	Response
				<p>Pdf at right doesn't track with the pdf distributed for review. Comments below track with the pdf distributed for review.</p> <p>Page 16 states, "Test minimum ventilation rates and building tightness limits based on ASHRAE 62.2-2010." ASHRAE 62.2-2010 does not address "building tightness limits", so this component of the requirement should be removed.</p> <p>Page 24 references ASHRAE 62.2-2007, while the rest of the guide references ASHRAE 62.2-2010. Suggest referencing 62.2-2010 throughout the manual for consistency.</p> <p>Page 64, "Termination location" cites ASHRAE 62.2 for requiring that terminations be located 10' from "mechanical inlets". However, 62.2 only places this requirement on "air inlets that are a part of the ventilation design". Suggest restricting this requirement to the same scope covered within ASHRAE 62.2: "air inlets that are part of the ventilation design".</p> <p>Page 68, "Backdraft damper". ASHRAE 62.2 does not require a backdraft damper for single family homes. Suggest removing reference footnote 29.</p> <p>Page 72, "Backdraft damper". ASHRAE 62.2 does not require a backdraft damper for single family homes. Suggest removing reference footnote 39 on pg 72.</p> <p>Recommend removing additional 62.2 footnote references for backdraft damper requirements since this is not addressed in ASHRAE 62.2: pg 77 - footnote 47, and pg 78 -- footnote 53.</p>			
358	Mike Moore	NY	Multiple	Page 392: Remove footnote 33, as many of the specifications listed are not supported by the standard.	1/6/2011	Rejected	This should go to ventiation expert
359	Myron Katz	LA	Page 17	Fireplaces are missing as killers! Explain to the occupant how the combination of a fireplace and a forced-air heating system can kill.	1/6/2011	Rejected	Fireplaces should certainly be dealt with in the assessment.
360	Donald Prather	VA	Page 36 2.2	<p>Combustion Appliance Zone Test (CAZ) is not in the glossary. Recommend that this section be removed until there is an industry wide recognized testing procedure for combustion appliance zone testing. Or that the bar for those qualified to test HVAC appliance be raised to the following level: Testing to make sure that gas appliances are operating safely should be done by trained technicians utilizing the original equipment manufacturers installation instructions and venting design requirements in conjunction with all applicable local and national gas codes.</p> <p>Reason: There are currently no HVAC industry wide universally accepted one size fits all combustion testing standards. Testing to make sure that gas appliances are operating safely should be done by trained technicians utilizing the original equipment manufacturers installation instructions and venting design requirements in conjunction with all applicable local and national gas codes. Some nationally recognized tests incorrectly state that the EPA and ASHRAE allow 9ppm of CO in a residential environment. The 9ppm is for an 8 hour exposure in a work environment where it is assumed the worker will leave thus allowing the CO level in the blood stream to reduce over the 16 hours in a day. CO levels should be less than 5ppm and preferably at 0ppm for residential living space.</p>	12/21/2010	Rejected	Needs a panel of experts to review. This would be a major change that affects safety in a large way. I suggest a combustion summit.
361	Donald Prather	VA	Page 37 2.2.4	<p>Specifications section recommend changing wording to: Depressurization limits should be established by referencing Original Equipment Manufacturers data, the National Fuel Gas Codes, NFPA 54 2009, and the ICC International Fuel Gas Code (IFGC)</p> <p>Reason: The Zone Depressurization Table Limits (Appendix B) is not an individual HVAC industry recognized standard practice or procedure that can be universally applied. Testing to make sure that gas appliances are operating safely should be done by trained technicians utilizing the original equipment manufacturers installation instructions and venting design requirements in conjunction with all applicable local and national gas codes. For example the BPI CAZ test allows only 2 minutes of back-drafting but is based on the ASTM procedure which allows up to 5 minutes of back-drafting while some OEM directions will not allow any back-drafting.</p>	12/21/2010	Rejected	Needs a panel of experts to review. This will require a major change in combustion safety. I suggest a combustion summit.
362	Donald Prather	VA	Page 38 2.3.1	<p>Specifications wording should be changed to: Spillage should be established by referencing Original Equipment Manufacturers data, the National Fuel Gas Codes, NFPA 54 2009, and the ICC International Fuel Gas Code (IFGC) and ASTM E1998-02(2007)</p> <p>Reason: Allowable spillage time is not an HVAC industry recognized standard practice or a procedure that can be universally applied. ASTM E1998 -- (2007) was written as a guide and even if cited as a standard; the spillage section cited is in a non binding Appendix. Testing to make sure that gas appliances are operating safely should be done by trained technicians utilizing the original equipment manufacturers installation instructions and venting design requirements in conjunction with all applicable local and national gas codes. Any spillage can become a problem under short cycling conditions.</p>	12/21/2010	Rejected	Needs a panel of experts to review. This will require a major change in combustion safety. I suggest a combustion summit.
363		MT	Section 1 Safety Devices	<p>Add to NFPA 720</p> <ul style="list-style-type: none"> * At least one alarm capable of protecting people with specific vulnerable health or medical conditions on every level (in addition to outside sleeping areas) from low level carbon monoxide. * CO Alarm/Detectors must be no more than 10% deviant from a true measurement after 3 complete years or more if the unit sensor has been tested to List with life expectancy claims. * End of alarm/detector life warning given after Listed Life Expectancy. * Alarms all have digital displays with accuracy to actual measurement no more than 10% deviant during Listed Life Expectancy. * Alarms must have methodology of actual field testing/verification their accuracy with test gas by trained & certified service technicians. * Alarms must have a set point to alert the victim at a consensus PPM level equal to SCBA or evacuation PPM concentrations of carbon monoxide. <p>Respectfully submitted,</p> <p>Bob Dwyer, Director of Training COSA (Carbon Monoxide Safety Association) 877-546-3726 www.cosafety.org</p>	1/7/2011	Rejected	Some valid considerations
364	Frank Stanonik	VA	Section 2, 2)	<p>This document has a disproportionate emphasis on depressurization testing and ignores other long standing processes for checking for proper vent operation of gas and oil-fired appliances. It is neither appropriate nor always necessary to conduct a Combustion Appliance Zone (CAZ) test. Annex H in the 2007 edition of the National Fuel Gas Code (ANSI Z223.1/NFPA 54) provides a recommended procedure for the safety inspection of existing appliance installations which includes steps to check for proper venting. If a gas appliance has been installed in accordance with the National Fuel Gas Code then depressurization should not be an issue because an adequate supply of combustion and ventilation air will be provided to the appliance. If an energy upgrade to an existing home changes the situation of the appliance such that the installation may no longer be in accordance with the National Fuel Gas Code, then that upgrade should not be implemented or be removed. Safety is always the prime concern and DOE should not be promoting energy upgrades that turn safe and properly operating existing appliances into potentially unsafe installations. Furthermore, the test is insufficient in that it only looks at depressurization, which may be an issue only when the appliance is installed in the conditioned space. There are other safety issues that may develop due to the installation of energy retrofit measures and in many parts of the country appliances are installed such that they are isolated from the conditioned space. The reference to ASTM E 1998 is insufficient. The scope of that standard indicates that it addresses residential hot water heaters, furnaces and boilers. But in the case of furnaces it is only applicable to Category I (draft-hood- and induced-fan-equipped) furnaces; it does not apply to Category III (power-vent-equipped) or Category IV (direct-vent) furnaces.</p> <p>The cited Appendix B depressurization limits table is not a national consensus standard nor have these limits been validated by thorough industry analysis and review. There is no recognized test procedure to measure the "depressurization" resistance of gas and oil-fired appliances so there is no data supporting these proposed limits. This table also includes limits for appliance types to which the ASTM standard specifically does not apply (i.e. power-vented and direct-vent models). The use of these proposed limits also deemphasizes the issue. If energy upgrades in an existing home lead to a depressurization issue then the preferred action is not to try to fix the newly created problem but rather to not do the upgrades that created the problem.</p>	1/7/2011	Rejected	Needs a panel of experts to review. This will require a major change in combustion safety. I suggest a combustion summit.
365	Donald Prather	VA	3.11.3 Page 78	<p>Specification should be changed to read: kitchen exhaust ducting shall be in accordance in accordance with the National Fuel Gas Codes (NFPA) 54 2009, ICC 2009 Standard Mechanical Code and all local code requirements, and in accordance with the applicable standard: SMACNA Sheet Metal Standards, NAIMA and the Fibrous</p> <p>Reason: Prescriptive statement currently in place will not accomplish the objective due to other factors covered in the mechanical codes</p>	12/23/2010	Rejected	Reviewers suggested language does not give any specific instruction or requirements. However, IMC 2009 is already cited. IMC should be spelled out in full.
366	Donald Prather	VA	3.11.5 Page 79	<p>Specifications Section should read: Exhaust fan Make up air must be designed in accordance with the Original equipment Manufacturers directions and in accordance with the ICC 2009 Standard Mechanical Code and all local code requirements, and in accordance with the applicable standard: SMACNA Sheet Metal Standards, NAIMA and the Fibrous Glass Duct Construction Standards, the Air Diffusion Council's Flexible Duct Performance & Installation Standards</p> <p>Reason: Prescriptive statement currently in place will not accomplish the objective due to other factors covered in the mechanical codes and OEM directions.</p>	12/23/2010	Rejected	The SWS spec cites ASHRAE 62.2-2010 as the source of this item. This is not correct. The citing should be the IMC-2009 504.5.

ID	Name	State	Section	Comment	Date	Status	Response
367	Donald Prather	VA	5.3.11 page 190	Specification should say: Take-offs will be in accordance with the ICC 2009 Standard Mechanical Code and all local code requirements, and in accordance with the applicable standard: SMACNA Sheet Metal Standards, NAIMA and the Fibrous Glass Duct Construction Standards, the Air Diffusion Council's Flexible Duct Performance & Installation Standards. Reason: Prescriptive statement currently in place will not accomplish the objective because properly designed and installed field takeoffs can perform at a lower static pressure than many off of the shelf take-offs.	12/23/2010	Rejected	The specification as written is clear and simple. Altering as reviewer recommends gives no direct guidance. The SWS spec states ". . . according to duct construction standards". If this is stated, it is logical to cite a reference.
368	Donald Prather	VA	5.35.1 Page 249	Also cite ANSI/ACCA 5 -- 2010 QI HVAC Quality Installation Specification and ANSI/ACCA Manual S Residential Equipment Selection Reason: Manual J8 covers basic load calculations The QI Standard and Manual S cover equipment selection and installation requirements	12/23/2010	Rejected	Comment is not appropriate for this section, BUT it is appropriate for section 5.34.1.
369	Donald Prather	VA	5.37.7 through 5.37.9 Page 253	Specifications should for all of the sections above should read: Equipment shall be installed following Original Manufacturer's directions, the ANSI/ACCA 5 -- 2010 QI HVAC Quality Installation Specification, and will be in accordance with the ICC 2009 Standard Mechanical Code and all local code requirements. Reason: Prescriptive directions will not work. For example: bladder tanks need to be installed on the suction side of a pump so a system's pressure can be adjusted	12/23/2010	Rejected	Add "Equipment shall be installed according to the manufacturer's specifications" Reject the other parts of reviewer's comment.
370	Donald Prather	VA	5.39.2	Cite: ANSI/ACCA 4 -- 2007 Maintenance of Residential HVAC Systems in One- and Two-Family Dwellings Less Than Three Stories, 2007	12/23/2010	Rejected	The specification as written is clear and simple. Altering as reviewer recommends gives no direct guidance. However, adding the reviewer's comment will offer a good resource for more information.
371	Donald Prather	VA	5.40.2 Page 259	Cite: ANSI/ACCA 4 -- 2007 Maintenance of Residential HVAC Systems in One- and Two-Family Dwellings Less Than Three Stories, 2007 Reason: It is the only ANSI recognized Standard on residential HVAC equipment maintenance requirements.	12/23/2010	Rejected	The specification as written is clear and simple. Altering as reviewer recommends gives no direct guidance. However, adding the reviewer's comment will offer a good resource for more information.
372	Donald Prather	VA	3.20.3 Page 100	Specification section should say: Existing return ducting should be brought into compliance with ANSI/ACCA 5 -- 2010 QI HVAC Quality Installation Specification and 2010, Manual D Residential Duct Systems requirements for new construction. Reason: Return air path is covered in those existing standards and the prescriptive answer as written is vague.	12/23/2010	Rejected	The section cited by the reviewer does not exist in the SWS.
373	Donald Prather	VA	5.8.17 Page 202	Specification section should say: Existing return ducting should be brought into compliance with ANSI/ACCA 5 -- 2010 QI HVAC Quality Installation Specification and 2010, Manual D Residential Duct Systems requirements for new construction. Reason: Return air path is covered in those existing standards and the prescriptive answer as written is vague.	12/23/2010	Rejected	The section cited does not address return ducting. Is there a mistake here by the reviewer?
374	Peng Lee	MS	0	The "STANDARD WORK SPECIFICATIONS FOR ENERGY EFFICIENCY RESIDENTIAL UPGRADES" and "JOB TASK ANALYSIS OUTLINES" are very inclusive and comprehensive. I believe they are quality guidelines. However, in real world application, one should also take into consideration the time factor involved to execute. To execute in all areas would take far too long and home owners will not pay for the time to make it even remotely profitable. Suggestion: Incorporate thermal imaging techniques into the pre- and pos-remediation inspection process. Thermal imaging allows inspectors to evaluate areas that traditional visual inspections cannot. If properly trained and follow proper protocols, this process increases accuracy and greatly reduces time spent in all other areas of inspection.	12/10/2010	Rejected	Comment is not relevant to the scope of the SWS or is not integratable as written
375	Sean Lintow Sr	AL	0	Unfortunately do to the 1500 character limitation I have had to break this into chunks: Full text can be located here also - http://blog.sls-construction.com/2010/recovery-through-retrofit-nrrg I must admit, when I first heard about this program via a webinar in earlier August it really sounded great. As I started writing up the original blog article on it, I was actually optimistic. When I started reviewing the few pages provided during the seminar some major issues popped up. Now, after reading through and reviewing all 632 pages, I think I have boiled down almost all the issues in the document into two simple problems that might also help explain the bulk of the issues you are facing with your current systems. Reinventing the wheel: Seriously, why are you trying to reinvent the wheel? While trying to listen into your "training" webcast today one slide caught my attention where you list that "Government and industry cannot keep putting money into retrofit programs and workforce training without; Work Quality Guidelines, Work Force Competency Guidelines, and Training Program Accreditation" which this document is supposed to help correct. The last line item we can simply eliminate as both BPI & RESNET have received said "accreditation" as of a few months ago.	12/9/2010	Rejected	Comment is not relevant to the scope of the SWS or is not integratable as written
376	javier saucedo	CA	0	My concern is the number of companies performing certifications. The industry needs one certificate one training Attn: Cathy Zoi, Assistant Secretary for EERE	12/20/2010	Rejected	Comment is not relevant to the scope of the SWS or is not integratable as written
377	Mindy Parker	TX	0	Ms. Zoi, I formally support this document and the impact it will have on renewable energy for homes in America as well as its economic impact for the future. As an American consumer, energy costs as well as a sustainable future are both very important to me, and any measure that contributes to an effective procedure for residential upgrades is a step in the right direction for the economy. Thank you, Mindy Parker	12/28/2010	Rejected	Comment is not relevant to the scope of the SWS or is not integratable as written
378	Frank Stanonik	VA	0		1/3/2011	Rejected	Comment is not relevant to the scope of the SWS or is not integratable as written
379	Earl Henry sr.	AZ	0	the entire packet is very needful ,and helpful.we will practice keeping an copy with us on site.to reference to and to aid in the field.	1/4/2011	Rejected	Comment is not relevant to the scope of the SWS or is not integratable as written
380	Jeremy King C.E.M.	VT	0	I am, overall, very pleased with the scope and language of the specifiactuons and intend to adopt many areas as a reference document when specifying how contractors are to install themeasures we specify in VGS' residential energy retrofit program	1/5/2011	Rejected	Comment is not relevant to the scope of the SWS or is not integratable as written
381	Mike Rogers	VT	0	Part 1. Thank you for the opportunity to review the Department of Energy residential retrofit guidelines. We believe standardized national guidelines are a critical step for the retrofit industry. We would hope that they will establish quality standards for energy efficiency improvements in homes to ensure that energy savings objectives are met while protecting health, safety, and building durability. Further, national standards can also support a framework on which to build training curricula and develop industry-recognized certifications to further workforce development. We have several comments and recommendations we would like to make to help ensure the guidelines provide the foundation for robust industry built on quality. We believe the guidelines represent an important first step. However, these guidelines in isolation are not a panacea. They should be accompanied by a comprehensive deployment to facilitate and encourage industry-wide adoption. Guidelines are good and necessary. However the rubber meets the road with monitoring and enforcement. Thus it is critical that DOE work to put mechanisms put in place to see that they guidelines are actually used. This almost certainly includes partner with a non-governmental organization to take on the role of monitoring and enforcing the standards set by the Guidelines.	1/7/2011	Rejected	Comment is not relevant to the scope of the SWS or is not integratable as written
381	Mike Rogers	VT	0	[continued...]	1/7/2011	Rejected	Comment is not relevant to the scope of the SWS or is not integratable as written

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				Part 2 of 4. Clearly a lot of work has gone into developing the guidelines established in this document. It is important to recognize that standards will continue to evolve. As such, it is very important that the guidelines evolve with them. DOE should establish a process for continuous maintenance of the Guidelines to ensure that they reflect the most up-to-date standards and job tasks. Similarly, it is essential to recognize that the Guidelines do not exist in a vacuum. They need to continue to build on other technical standards and guidelines that already exist, and the certifications that are built on the standards. For example, in this arena, the tremendous work of the Building Performance Institute (BPI), Residential Energy Services Network (RESNET), Home Performance with ENERGY STAR. The DOE Guidelines must clearly integrate with other existing standards, without creating another layer of redundant or conflicting standards and certifications. We recommend that DOE engage in an ongoing effort to work with the EPA, Department of Labor, and other relevant agencies to identify opportunities for integrating existing standards with the Residential Retrofit Guidelines.			
382	Mike Rogers	VT	0	[continued...]	1/7/2011	Rejected	Comment is not relevant to the scope of the SWS or is not integratable as written
				Part 3 of 4. DOE stated that the Interstate Renewable Energy Council (IREC) will become the accrediting body for training programs wishing to follow the Residential Retrofit Guidelines and integrate the Knowledge, Skills, and Abilities into their training curricula in order to provide industry-recognized certifications to their students. But it is unclear how this accreditation compares to BPI and other existing standards, and whether it makes sense to add yet another layer of accreditation. Moreover, the cost of IREC accreditation is prohibitive for many small non-profit training providers. We recommend that DOE review the necessity of creating another layer of accreditation, and seek industry recommendations for streamlined and standardized accreditation process. We further recommend that DOE work with the Department of Labor to provide grants to training organizations wishing to become accredited through this process.			
383	Mike Rogers	VT	0	[continued...]	1/7/2011	Rejected	Comment is not relevant to the scope of the SWS or is not integratable as written
				Part 4 of 4. As written, the Guidelines are heavily skewed toward Weatherization Assistance Program providers and other subsidized retrofit programs, and apply only marginally to market-rate retrofit contractors. They also do not cover sufficiently the scope of HVAC work that is typical in market-based home performance work. This is a big gap. In our experience, HVAC is a clear entry point to this type of retrofit work, and HVAC improvements are much more prevalent in market-based work scopes than in the WAP program, with artificial cost constraints and drivers. For the guidelines to be most useful and most widely adopted, they must reflect the broad variance in job types and tasks represented within the industry. This may not be possible with the one-size-fits-all job categories, and DOE should reexamine that categorization. This is probably best accomplished by focusing on the task analyses and KSAs necessary for a variety of different types of work done within a house.			
384	Mike Rogers	VT	0	Thank you again for the chance to review these Guidelines. Please do not hesitate to let me know if there is anything I can do to either clarify these comments or help move this forward.	1/7/2011	Rejected	Comment is not relevant to the scope of the SWS or is not integratable as written
385	Chris Stratton	CA	0	In fact, this EPA publication obviates a fair amount of the health and safety material from this document.	12/21/2010	Rejected	Don't know what EPA document referred to
386	Mike Rogers	VT	0		1/7/2011	Rejected	No comment there
387	Sean Lintow Sr	AL	1	While you list "Work Quality Guidelines" as a major issue, and a primary driving force for this document, many of them listed are simply not realistic (i.e. one quick example -- venting can't always point to the exit directly as reality has something to say about that) nor do some of them even meet current codes. While reviewing this document I had over three pages of code & reality issues before I even hit section 5. What is even more startling is the building codes were only listed once in any of the "guidelines" and obtaining a building permit or inspection was never listed. If you truly want "Work Quality Guidelines" that you can apply across the entire "weatherization" and government sponsored retrofits programs, may I humbly suggest that you simply adopt the 2009 IECC (which all states that took stimulus money are supposed to be adopting), the 2009 IRC, and other applicable codebooks and manufacturer's directions. You know would have your quality guidelines that can easily be adopted nationwide, and actually be seen as a leader. Just like local jurisdictions, if there is a section that you think could be better, is not needed, etc... than modify it and add it as your minimum standard that applies to said programs.	12/9/2010	Rejected	Comment is not relevant to the scope of the SWS or is not integratable as written
388	Chris Stratton	CA	1	In the heating and cooling efficiency section of the appendix for this section, each header contains the exact same four bullet points.	12/21/2010	Rejected	The bullet points are relevant for each section and the reviewer did not provide alternative text for substitution
389	Sean Lintow Sr	AL	2	The final issue you bring up is the "Workforce Competency" which in all honesty is an insult to the hundreds of thousands of trade professionals out there. There are two working systems out there that deal with this and employee advancement; the unions and their apprenticeship programs, and in the real world a little thing, we like to call OJT (On the Job Training). While there are numerous causes of bad workmanship, two stick out in regards to the Weatherization program. The first is you are trying to reinvent the wheel again. See in the real world, I as a General Contractor, would hire specialty trade contractors for the work we did not accomplish / not qualified to do, and call for inspections. In your case, well we now get to the second root problem...	12/10/2010	Rejected	Comment is not relevant to the scope of the SWS or is not integratable as written
390	Matt Redmond	NY	2	General comment: It does not take into account the basement volume, once the basement is factored in it is very close. It is unlikely that most Weatherization programs will be able to tighten houses to ASHRAE 62.2.-2010. Weatherization does not have funding for mechanical ventilation other than bath and kitchen fans.	1/7/2011	Rejected	True but the specification must stand
391	Russ Shaber	CO	2.1	This is OSHA stuff. Just say: Follow OSHA.	1/7/2011	Rejected	It is clear it is OSHA because of the footnotes. The specific details are useful and make the SWS self-contained.
392	Chris Stratton	CA	2.2	Increase clarity and efficiency of words by referring to existing, well-vetted specifications wherever possible. For example, "Use BPI or equivalent duct leakage testing procedures" and include those procedures in an appendix.	12/21/2010	Rejected	This section is accurate as is and does not require additional documents for compliance.
393	Shelley Kawamura	CO	2.5	Are there provisions for testing gas dryer zones for back-drafting of CO?	1/7/2011	Rejected	Yes CO test in the CAZ
				Jack-of-all-trades, masters of none: Except for "licensed electricians", there is not a single listing for any other licensed trade or contractor in the entire document. Most state programs I have seen are based on one company coming in & doing all this weatherization work. The issue with this is, most of these individuals never get an opportunity to really learn one trade and why things are done a certain way, much less the four or five other trades worth of work they may try to do in a day. The kicker is if a regular contractor tried to do this (especially with no permits), they would be in some legal hot water. One quick example is that in many states including mine, only a licensed HVAC company can touch, maintain, diagnose, or repair any duct or ventilation system and the associated equipment. Training: I know one of your primary goals is to help come up with a training and certification that individuals can use to advance their careers. I can quite simply tell you and so can many others; there is no amount of classroom training that can replace the experience one gains working in the field. I have been in the field for over 20 years now & I can tell you I do not know it all, nor have I seen it all yet. While it is laudable that you want to add 250,000 or whatever "green" jobs, the only training that truly matters, is learned in the field.			
394	Sean Lintow Sr	AL	3		12/10/2010	Rejected	Comment is not relevant to the scope of the SWS or is not integratable as written
395	Greg Nettleton	WI	3.1	Make up air based upon over 200 cfm for dryer and range hood may exceed standard measured flows as found in field testing.	1/7/2011	Rejected	200 CFM represents a recognized rated flow and the reviewer did not provide alternative flows for substitution
396	Greg Nettleton	WI	3.11	Make up air based upon over 200 cfm for dryer and range hood may exceed standard measured flows as found in field testing.	1/7/2011	Rejected	200 CFM represents a recognized rated flow and the reviewer did not provide alternative flows for substitution
397	Shelley Kawamura	CO	3.15	garage ductwork should not be connected to ductwork that is in livable space	1/7/2011	Rejected	Covered in Heating and Cooling - Detail 31 - Removing Supply Vents from Garages

ID	Name	State	Section	Comment	Date	Status	Response
398	Sean Lintow Sr	AL	4	Health & Safety Issues: Safety first, do no harm, etc... are great mantras, but unfortunately lacking when one looks into the details. Beside the points made above, the biggest one revolves around gas-fired appliances. As one individual, so eloquently put it "That being said, CAZ testing is a new frontier for energy auditors and folks like me who were involved in this project. We took the BPI guidelines to read straight up, when in reality, practice, and academia, the vagueness of the document produced by BPI for CAZ testing, has created much confusion. The basics are understood by most, that is not the issue here, it is the protocol." I cannot tell you how many YouTube videos I have seen where "trained" individuals are doing it wrong, (i.e. drilling into PVC exhaust vents, double walled venting & then sealing it improperly, etc...) or in my case where instructors miss a part or simply contradict one another, etc... In all honesty, the testing of the actual appliances for CO, spillage, and drafting needs to be done by a licensed individual. The worst case test, visual checks, CO monitoring & gas leak checks are about the only thing most "trained" auditors should even attempt or do.	12/10/2010	Rejected	Comment is not relevant to the scope of the SWS or is not integratable as written
399	Robert De Vries	MI	4	Suggest replacing the complicated ELA formula with the simpler National Research Council of Canada's ELA=0.2939 X ACH10	12/2/2010	Rejected	Could not find reference
400	Earl Henry sr.	AZ	5	on unvented space heater will be removed from home before any retrofit are we to up grade or seek to vent and should we install CO monitors for each room.	1/4/2011	Rejected	The unvented statement is covered in the SWS. I don't understand other comments
401	Frank Stanonik	VA	5.16	This appears to be specific to oil-fired equipment. If that is correct the subtopic should state Commissioning of Oil-Fired Appliances." Also row 8 incorrectly references the safety standard for residential gas ranges. The reference should be to applicable UL safety standards for oil-fired appliances.	1/7/2011	Rejected	Redundant comment
402	Chris Stratton	CA	5.16	EIGHT identical footnotes!?!?	12/21/2010	Rejected	This is not a comment; it seems that it is a question and a reprimand. The other option is the use of "ibid". Leave as it is.
403	Sean Lintow Sr	AL	6	As mentioned above, you should adopt the 2009 IECC as your primary standard and adapt it to meet your goals. All you would need to do is put a reference to the applicable section or your modifications and move on. The nice part about the 2009 IECC is that your agency has already made it available for anyone to download free so that does not put a burden on anyone. The other great thing with adopting that code, is now you will have a group of individuals in each state to help them adopt it, when they fulfill their part of the stimulus bargain. Another idea along the same lines is to adopt your own ENERGY STAR program for older homes and tie it into the retrofit market. As a RESNET rater, we can easily rate a house to get an appropriate number and verify work that is done. Now you have not only a specialized trained rater verifying the work but a trusted number and name that is still lacking in your current program. I do love one saying from Microsoft & that is how they eat their own dog food (in this case they beta test the software they create in house first). If you truly want this field to take off, you need to start practicing what you preach & even share the results. I really cannot believe when I walk into one of your buildings, another agency, and simply look up or out at the desks and see older fluorescents & incandescent light bulbs among other issues tends to send the wrong message.	12/10/2010	Rejected	1st paragraph: IECC is a code for new buildings, not existing. The IEBC could be considered, but this covers primarily commercial buildings. 2nd paragraph: this is beyond the scope of this process, but it is an interesting idea. 3rd paragraph: the reviewer's comment does not point to the point or logical.
404	greg pedrick	NY	6.17	before putting loose fill over existing insulation, remove the existing insulation and clean the surface via vacuuming. Then apply flash coat of high density spray foam (HDSF) and fill with cellulose to settled depth. Include photos of the completed, correct installation.	12/2/2010	Rejected	Represents a best practice comment that may not be feasible in all situations. SWS currently covers insulation being in contact with the air barrier and air sealing.
405	Jon Dennis	MI	6.28	Desired Outcome: Install insulation to reduce heat transmission and air infiltration through walls	12/30/2010	Rejected	Redundant Comment\
406	Gina Crist	CT	6.28	The Detail name should be changed to Exterior Wall Insulation (to include Injection Foam insulation) Desired Outcome: Install insulation to reduce air infiltration through walls.	1/4/2011	Rejected	Redundant Comment\
407	Mark Harris	CT	6.28	Desired Outcome: Install insulation to reduce heat transmission and air infiltration through walls	1/7/2011	Rejected	Redundant Comment\
408	greg pedrick	NY	6.9	consider removing the existing insulation, installing a "flash" coat of high density spray foam (HDSF) then filling with cellulose to a settled depth criteria. Include photos of what this completed work, done correctly looks like.	12/2/2010	Rejected	Represents best practice. Spray foam will be added.
409	greg pedrick	NY	7	Remove any/all batt insulation that is or is not stuffed into the cavity at the top of basement wall and rim joist of 1st floor house deck, and apply low density expanding spray foam to both air seal and insulate this transition area. A 2 part foam kit can be purchased based on the lineal footage of this rim joist perimeter, and applied without employing another "specialist" technician.	12/2/2010	Rejected	Represents best practice. Spray foam will be added. Air sealing baements is referenced in the basements section.
410	Greg Nettleton	WI	8.11	Eliminates any natural drafting water heaters, which will be a benefit in most instances, however even direct vented models may experience draft problems (pressure switch shutoff) under high levels of depressurization. Wisconsin's Focus on Energy New Homes Program has adopted a depressurization limit for new construction of -50.0 p for combined mechanical ventilation of certified homes. A similar standard may need to be adopted for retrofit projects receiving advanced air sealing treatment. Additional accommodations may also be needed to ensure sealed combustion appliances; this will also reduce the need to bring in supply combustion air for equipment reliant upon this atmospheric combustion air. Where water heating equipment is only atmospheric vented gas fired appliance in home, additional cost of sealed combustion water heating cost may be merited in place of make-up ventilation air where not currently present.	1/7/2011	Rejected	No recommendation by reviewer
411	Jim Urtz	CT	8.16	here as elsewhere, believe that routine maintenance is outside the scope of the document. The need and value of maintenance should be part of homeowner education, and the specifications here should apply to the individuals performing the maintenance work.	1/7/2011	Rejected	This is an SWS for the routine maintenance a crew person would accomplish if needed
412	Charlotte Brody	VA	10	why is carbon monoxide and other garage pollutants a safety but not a health issue? Should there be a worker health and safety column added?	1/4/2011	Rejected	The only place I could find that this might be referring to is the line for "clearance to combustibles" which is a fire safety issue, not a CO or air quality issue.
413	Stephen F Walker	CO	122	Multifamily buildings vary widely. They range from houses divided into three apartments to 500-unit high rises. So a weatherization project must be tailored to fit the personality of the building. The first order of business is to assess whether a particular building should be treated as a system or divided into floors or units. This assessment should take into account how air moves through the building. If there is a lot of air movement between floors, the building starts to act like a tall house. If each floor is sealed off from the others, the building resembles a lot of houses stacked on top of one another. To determine which type a given building is, gauge the stack effect by looking at the temperature differentials throughout the building. Are the top floors overheated while the bottom ones are too cold? Other helpful measurements include pressure differentials and physical tests such as opening a window on the top floor and checking for a strong steady gust of air moving out of it. The second scenario—in which the floors are compartmentalized—is preferable, because in the first, the apartments at the bottom tend to be cold, while those at the top may have poor indoor air quality. However, it is the first scenario that predominates among low-rise multifamily housing stock. In these buildings, defining a pressure barrier for the entire building, and then making it effective, stops direct convective heat loss and can reduce conductive loss as well. It can be confusing	12/23/2010	Rejected	Comment is not relevant to the scope of the SWS or is not integratable as written
414	Stephen F Walker	CO	122	Regardless of whether the thermal barrier has been aligned with it, the pressure barrier can be very difficult to define in multifamily housing. Units share walls, ceilings, and floors with other units. There are generally common areas, such as hallways, mechanical rooms, and group activity rooms, which may or may not be heated. And there may even be areas inside the building that need to be isolated from heated areas, such as stairways, elevator shafts, and trash chutes. Once the pressure barrier has been defined, it can also be difficult to make it effective, since areas that are critical to treat may be inaccessible, and the extensive work required to make them accessible may be too expensive. In order to make the pressure barrier effective and cost-effective in a low-rise multifamily building, it is important to treat the building as a system. While units may be individually heated, it is usually not cost-effective to try to zone units or floors off from one another. Moreover, the units themselves are often well separated convectively from one another and from building cavities. In houses treated through Syracuse Energy's Demand Savings for Multifamily Buildings project, we often found units so tight that they had blower door readings of 400 and 500 cubic feet per minute at 50 Pascals of pressure (cfm50). In Vermont, an entire four-unit building of 2,370 ft2 was tested at 1625 cfm50. (According to GRASP's energy efficiency rehabilitation specifications, the minimum readi	12/23/2010	Rejected	Comment is not relevant to the scope of the SWS or is not integratable as written
415	Stephen F Walker	CO	122	After determining where the pressure barrier should be, the crew must inspect it for problem areas. With single-family homes, a blower door can identify pressure problem sites. Such testing is more complicated with multifamily buildings, because there are more opportunities for indirect leakage paths, which may skew results. Depressurizing an apartment with a blower door may induce air to flow through adjacent units or spaces into the tested unit. This will cause the blower door to measure more leakage than is actually entering the tested unit from the outdoors. Conversely, if the units are very airtight as a result of consistent maintenance, which is not uncommon, the test results may make the building seem tighter than it actually is. The crew should test the entire building, if possible, to get a true picture of the exterior leakage through the building's interior skin—that is, through drywall, plaster, and so forth. A single blower door can accomplish this if the building is tight and all the units open onto a central corridor, but more often it requires two or more blower doors. Two blower doors will more accurately gauge the exterior air moving into the building interior. Unfortunately, this test may overstate the integrity of the pressure barrier, because air movement in the building cavities may not be apparent if the building has a tight interior skin. Air movement occurring within building cavities can be as important as exterior air penetrating the interior of	12/23/2010	Rejected	Comment is not relevant to the scope of the SWS or is not integratable as written

ID	Name	State	Section	Comment	Date	Status	Response
416	Stephen F Walker	CO	122	The best diagnostic technique for these problems is a good visual inspection. In the attic, pull back existing insulation and look for party walls, chases, and dropped soffits. Be especially careful to look around fire walls for a full building height cavity, especially at block walls. Check the block walls for open cores, which are usually rather obvious. On a cold day the warm air blowing out of these cavities will be perceptible to an ungloved hand. One excellent indicator of air movement is dirty fiberglass insulation; as the air moves through the fiberglass, it is filtered and the dirt is left behind. When the insulation is lifted or moved, there will be very clear black streaks over problem areas. While in the attic, check the insulation over the exterior walls as well. Fiberglass insulation in the walls will not stop air movement. The air movement will in fact compromise the R-value of the insulation and may render it ineffective if it was not installed correctly. In overhangs, remove a piece of the soffit, if possible. If the cavity is insulated, remove the insulation and check for dirt streaks. The same inspection should be conducted in other cavities, such as basements or crawlspaces (although these are normally included within the thermal boundary, unless they have problems with radon leakage or moisture). Another common attic problem in rehabilitated buildings can occur when a contractor tries to redefine the thermal and pressure boundaries by lowering ceiling he	12/23/2010	Rejected	Comment is not relevant to the scope of the SWS or is not integratable as written
417	Stephen F Walker	CO	122	Treating the Pressure Barrier Once the crew has diagnosed the problems with the pressure barrier they should prioritize them and develop treatments. Unfortunately not much research has been done to determine which cavity leakage sites have the greatest impact on energy loss. The available computerized building modeling programs are too limited. Most of them allow an input for certain types of convective loss, and the several inputs needed to define building R-values, but they do not have any input options for air movement in interior cavities. In programs that allow some flexibility in data entry, these surface areas can be carefully modeled as exterior surface areas with varying R-values, depending on the severity of the air movement and on the building materials used. What is known is that treating these areas lowers fuel use, and that occupants usually notice an immediate improvement in comfort. Several materials already familiar to the air sealer experienced in single-family housing stock are available to treat these problems.	12/23/2010	Rejected	Comment is not relevant to the scope of the SWS or is not integratable as written
418	Stephen F Walker	CO	122	Clamping Down on Attics The several penetrations normally found in the attic are treated depending on their size and on the material to which the treatment will be applied. Smaller gaps, such as those typically found around wiring and piping, can usually be caulked. Larger gaps, such as the area between the top plates and the adjacent drywall, as well as larger utility penetrations, should be foamed—with or without a backing, depending on the size of the gap. At plumbing stacks, especially those using polyvinyl chloride (PVC), however, foam treatments usually fail, because PVC tends to expand and contract with changes in temperature. A better air sealant for these areas would be one that fits tightly around the pipe but is flexible and allows movement, such as the material used in roof jacks or ethylene-propylene terpolymer (EPDM) membranes. The crew can seal this to the attic floor, and then fit it to the pipe, which will allow it to move while providing an air barrier. At the tops of party wall cavities, the crew can use either rigid board insulation or drywall, depending on their preference and on the local fire code (some codes prohibit the use of foams or rigid board on a fire-rated barrier). For open wall cavities, such as those found around soffits, the crew should create a continuous barrier. This can be done either by air sealing the entire top of the dropped soffit or by capping the wall cavity at the lower soffit level and providing continuous insulation t	12/23/2010	Rejected	Comment is not relevant to the scope of the SWS or is not integratable as written
419	Stephen F Walker	CO	122	In addition to air sealing treatments in the attic, the crew may want to consider "capping" loose-fill fiberglass insulation with a layer of cellulose insulation. The cellulose tends to inhibit air movement through the fiberglass. If the attic has a flat roof, making it inaccessible for treatment, and the crew finds air sealing problems, the only options may be to dense pack the entire cavity, or to treat what can be accessed and dense pack what is inaccessible. If this seems too expensive and there is no existing venting on the roof, the crew may consider dense packing the perimeter of the attic cavity only. Since the air movement out of an attic cavity with no roof venting would be at the eaves, this can stem the heat loss. It will be necessary, however, to make sure that there are no large air leakage areas elsewhere on the roof deck. If there are, moist air may be drawn up into the attic cavity and trapped there, where it can cool and condense, creating moisture problems.	12/23/2010	Rejected	Comment is not relevant to the scope of the SWS or is not integratable as written
420	Stephen F Walker	CO	122	Continuing Challenges The challenge posed by multifamily housing stock is to understand conductive heat losses caused by movement through building cavities. This type of heat loss is most severe in multiunit buildings because of the large amount of interior surface area involved. It affects not only energy use, but tenant comfort and building durability as well. Traditional blower door diagnostics may not find the major problems associated with multifamily buildings. Computer programs don't easily allow for modeling the energy use associated with them. Visual inspections do reveal the same problems as those found in single family housing, but the extent of the problems take on a new priority in these larger, taller buildings. The treatments are the same, but more of them are required. Still, considering the high energy use of many of these buildings, the impact of these treatments on the fuel bills and comfort of the buildings' occupants, and the tremendous economies of scale due to low auditing and production costs, air sealing multifamily buildings can be an attractively cost-effective project.	12/23/2010	Rejected	Comment is not relevant to the scope of the SWS or is not integratable as written
421	Tom Harrison	PA	*why	Why is Chu hiding the waste, fraud and abuse?	12/16/2010	Rejected	Comment is not relevant to the scope of the SWS or is not integratable as written
422	Russ Shaber	CO	1.1.1	General Comment: There seems to be two general ways to go on this: All inclusive and Simplified. The All inclusive support will ensure that nothing gets missed. The Simplified approach will be much more cost-effective. Why not wait until the National WAP Evaluation has been completed? It seems there will be a lot of good information coming out of that study.	11/24/2010	Rejected	Comment is not relevant to the scope of the SWS or is not integratable as written
423	Matt Keeler	NC	1.1.1	Test	12/6/2010	Rejected	Comment is not relevant to the scope of the SWS or is not integratable as written
424	Jacqueline Germany	NJ	1.1.1	No follow-up with Residential building or property owners if reoccurring problems found on site. Homeowner or Resident deals with the results of the audit, while issues may be systemic or beyond the scope of the audit or homeowner!	12/20/2010	Rejected	Comment is not relevant to the scope of the SWS or is not integratable as written
425	Duane Ford	TN	1.1.1	Is it DOE desire to use these guideline upgrades without modifications for the purpose of a national standardization? I understand the benefits of standardization within the WAP industry, but I also see differences and energy savings of installed measures between regions and States. As we know the savings to investment ratio (SIR) and the benefits of installed measures differ by regions. The upgrades need to be adaptable by region and States. Will these upgrades be optional for States to adopt and modify? The State needs to have the option to certify State approved auditors and other staff in the program (as applicable) and not be a mandatory requirement. States should be able to continue to have their own guidelines for approval of energy auditors and installers. Some of the recommendations and guidelines are outside the normal WAP. Measures such as, move attic stairway to the interior of home, planting indigenous trees for shading, entertainment and computer systems replacements, and replacement of washing machines are currently not considered in the DOE Neat/MHEA programs. If these are approved WAP measures will the DOE revise current Weatherization WAP programs to recommend such measures? Not just the WAP audit programs but permit the expenditures with DOE dollars under WAP If these measures are approved and DOE NEAT/MHEA program recommends these measures it would drive the cost of a WAP funded homes upwards. We believe it could double the cost per home for these recommended measures. How will these upgrades change the way funding from DOE is distributed or allocated to the States. I would assume it would have to increase the State's funding or consolidated existing programs to cover the increased cost per home to install all upgrades and DOE increase allowable average cost per unit I did not note anything that addressed historic homes. How will these guidelines change when the home is inside Historical Preservation Overlay or has historical value?	1/7/2011	Rejected	Comment is not relevant to the scope of the SWS or is not integratable as written
426	Sarah Widder	WA	1.1.1	The associated Table (Appendix A) seems very comprehensive. Has any consideration been given to the time and cost all of this testing will require? Particularly, radon and vermiculite testing are not typically done in home audits currently. Perhaps some of the tests could be performed as necessary. Also, some I believe more guidance should be given as to how some of these items (i.e. mold or moisture issues) are to be identified.	1/7/2011	Rejected	Comment is not relevant to the scope of the SWS or is not integratable as written
427	Timothy C Vesely	CT	1.1.1	For PV installations the requirement for a blower test is un necessary, Thermal applications where heating with solar is a factor a blower door test should apply. States such as Connecticut require a full energy audit as a pre install requirement and this should not apply unless the residence is heated with electric.		Rejected	Can not find reference to blower door testing and PV installations
428	Shelley Kawamura	CO	1.1.1	Recommend to occupant that hot water heater be set below 120 degrees F.	1/7/2011	Rejected	Too specific for current assessment section
429	Shelley Kawamura	CO	1.1.1	Inspect drip pans and condensation drains for mold	1/7/2011	Rejected	Do not understand importance or action
430	Shelley Kawamura	CO	1.1.1	Occupant interview should include inquiries about occupant health issues and the presence of sensitive populations/residents	1/7/2011	Rejected	Comment is not relevant to the scope of the SWS or is not integratable as written

ID	Name	State	Section	Comment	Date	Status	Response
431	William Wyrebeck	MA	1.1.5	<p>Creating healthy energy efficient structures should be a mandate and not a matter of choice. Energy conservation by the public will be driven by real dollar savings that are not off-set by increased rates to make up for lost revenue.</p> <p>I feel there are three ways to accomplish this.</p> <p>1. Create a home tax credit by providing up to 10% of finished construction cost and appliances of domicile. Amortized over within 5 years. This will stimulate the housing and construction market and create real jobs.</p> <p>2. Do not include houses more than 8 years old and not of historical value. Instead have these structures dis-assembled and moved to areas in need of housing in overseas countries especially those that have been war torn.</p> <p>3. Provide fixed rates for utilities, water, and heating fuel to those that build efficient structures, purchase energy efficient appliances, conserve natural resources.</p> <p>Communities impose higher fees to off-set water conservation gains and utility efficiency rather than use fiscal responsibility and conservation. People must save money out of pocket. It does harm to conservation efforts that the money saved by conserving is lost by increasing the cost of the lower amounts of energy consumed. Fixed rates determined by energy audits of efficiency provide stable costs to home owners and long term projection of revenue to municipalities to determine FTEs and capitalization.</p> <p>Remove old housing eliminate older poorly designed and engineered structures. Go Economy!</p>	12/20/2010	Rejected	Comment is not relevant to the scope of the SWS or is not integratable as written
432	Dona Stankus	NC	1.1.5	Why is Energy Reduction an OPTION? This should be mandatory for a guide of this type (unless contraindicated due to safety concerns).	1/7/2011	Rejected	Comment is not relevant to the scope of the SWS or is not integratable as written
433		PA	1.1.5	What are other goals other than energy reduction?	1/6/2011	Rejected	Existing text is more thorough and representative of the listed specifications
434	Shelley Kawamura	CO	1.1.6	Occupant should also be educated about proper building processes and maintenance that may affect health as well as energy efficiency (i.e. MERV ratings, HVAC system maintenance, etc.)	1/7/2011	Rejected	Too specific for current assessment section
435	Dona Stankus	NC	10. IHSA Table	<p>In general, the column headings need an explanation of their meaning. I am guessing that the heading "Environment" means to either harm or enhance the environment. Some examples of issues: Under Group, 'Combustion Appliance Safety' Existing Standard, 'Fuel Leaks', check "Environment".</p> <p>Under Group, 'Existing Potential Moisture Problems', Existing Standards 'Exterior Water Intrusion' and 'Presence of properly applied vapor retarders' check "Energy Reduction".</p> <p>A full review of this chart is needed after clarity on the column headings is provided.</p>	1/7/2011	Rejected	Can not find direct reference.
436	Joe Hall	CO	2.1.10	need to call out the gear needed, what is the right footwear?	1/7/2011	Rejected	This is a level of detail beyond the scope of this document.
437	Tolle Graham	MA	2.1.2	Add OSHA standard in chart. need stronger requirement so workers will use respirator.	1/7/2011	Rejected	Added reference to OSHA Standard in footnote
438	Joe Hall	CO	2.1.2	N-100 Or better, you need a Respirator to do this work	1/7/2011	Rejected	The reference to "N-95" is as an example, not a specific requirement
439		PA	2.1.3	GFI's for all electric tools will be a costly undertaking.	1/6/2011	Rejected	A little extra cost for considerable safety
440		PA	2.1.3	Avoiding metal ladders will be costly.	1/6/2011	Rejected	Definitely more costly, but much safer
441	Joe Hall	CO	2.1.7	this will eliminate the use of two part foam in confined spaces such as crawls and attics	1/7/2011	Rejected	If it's impossible/impractical to use products safely, then they shouldn't be used.
442	Joe Hall	CO	2.1.8	how do you ergonomically crawl through a confined attic or crawlspace? It's a nice thought, but this is a hard job requiring you to contort yourself.	1/7/2011	Rejected	Interesting observation, but no way to integrate it.
443	Joe Hall	CO	2.10.6	add the need to use exhaust ventilation when cooking.	1/7/2011	Rejected	Current document does not address homeowner education
444		PA	2.11.1	Need smoke alarms hard-wired or battery ok?	1/6/2011	Rejected	Battery operated is covered and allowed withing guidelines
445	Joe Hall	CO	2.11.1	hard wired is to far for retrofit, I can see it as a standard in new construction, it would add additional cost that may not be acceptable after ARRA funds are gone.	1/7/2011	Rejected	Battery operated is covered and allowed withing guidelines
446		PA	2.12.1	Hard-wire CO Detectors or battery ok?	1/6/2011	Rejected	Battery operated is covered and allowed withing guidelines
447	Joe Hall	CO	2.12.1	too far for retrofit, battery or plug in, also need better CO alarms most do not go off until 75PPM, if you do install them make them with a digital read out.	1/7/2011	Rejected	Interesting observation, but no way to integrate it.
448	Dale Hoffman	IL	2.2.1	<p>The working title of our program is "Quad City Green", which was originally conceived by The Quad City Home Builders Associations' Remodelers Council (QCHBA) and Eastern Iowa Community College (EICC) in an effort to stimulate construction jobs, which were drying up in our area. They had engaged Wells Fargo to contribute to the plan by considering to create an energy efficiency loan program, tailored to our metropolitan area. It was at that point they contacted our company, Midwest Sustainable Energy Contractors (MSEC) to provide third party data supporting the concept that the term "affordable housing" needed to include the cost of energy. We had been an active member of the Association in the past, and were glad to offer our support.</p> <p>EICC is involved because of their commitment to renewable and efficiency training, to provide Green Building classes locally, and to comply with a future mandate in Ia. for contractor certification that may be required in the COSC Green Street Program. As they already have an outstanding renewable program and facility in place, and are breaking ground on a new Environmental Center, they were a perfect fit.</p> <p>We computer modeled 4 styles of homes common in our area and found, without exception that these older homes can reduce their energy consumption for heating and cooling, by over 50%.</p> <p>MSEC was also familiar with the stimulus activity as we are helping communities in Illinois develop strategies that not only comply with, but exceed Fed</p>	12/20/2010	Rejected	Comment is not relevant to the scope of the SWS or is not integratable as written
449	Joe Hall	CO	2.2.1	just placing air handler on high is not a good plan, if the the ducts are small and restricted it will cause the heat rise to increase lowering efficiency cause cycling on the limit and increased wear and tear on the heat ex.	1/7/2011	Rejected	Irrelevant comment to depressurization test.
450	Joe Hall	CO	2.3.1	good standard, it is measurable.	1/7/2011	Rejected	Comment is not relevant to the scope of the SWS or is not integratable as written
451	Matt Redmond	NY	2.5.1	Some HVAC systems will not be at Steady State after 5 minutes of operation.	1/7/2011	Rejected	No recommendation on alternative time provided.

ID	Name	State	Section	Comment	Date	Status	Response
452	Jacqueline Germany	NJ	2.5.2	Residential Grease Traps collection, storage & recycling! There are emerging companies on the commercial side that dealwith disposal, handling & recycling and collection. Does this grease goes into the residential sewage system? Should be incentivized to collectors who are able to hand this on the residential side and be incentivized as a result.	12/20/2010	Rejected	Beyond the scope of this project
453	Joe Hall	CO	2.6.1	no home made bubble mix	1/7/2011	Rejected	No recommendation by reviewer
454	Russ Shaber	CO	2.7.1	This is grounds for a lawsuit by the "Vent Free" Gas Appliance Manufacturers. I was just in a with an unvented space heater. It was running continuously and producing 50 to 60 ppm. The ambient CO was 0. It was preventing the pipes from freezing.	1/7/2011	Rejected	Comment is not relevant to the scope of the SWS or is not integratable as written
455	Joe Hall	CO	2.7.1	very good	1/7/2011	Rejected	Comment is not relevant to the scope of the SWS or is not integratable as written
456		PA	2.7.1	RE: removing unvented space heaters, are replacements considered if primary heat source?	1/6/2011	Rejected	Would be covered under system installation
457	Matt Redmond	NY	2.7.1	In some areas of New York State an unvented space heater is kept for an emergency back up heat, because it can be run without electricity when the power is interrupted.	1/7/2011	Rejected	CO poisoning can occur in just a few minutes
458	Joe Hall	CO	2.8.1	Pre-test, interim, and post-test, I would like to see at the end of each days work on each house.	1/7/2011	Rejected	This would be a local requirement
459	Joe Hall	CO	2.8.4	Ambient CO; will be maintained; acceptable; levels; after work; complete; 28 how are you going to do this, are we going to monitor CO off site? what if the client smokes indoors. I would drop this section.	1/7/2011	Rejected	I can't understand most of this and CO detectors in homes are needed even if there are smokers
460	Russ Shaber	CO	2.9.1	The objective is to ensure that the combustion appliance is not spilling CO into the building. A CO monitor can do this. These BPI procedures should be used for diagnosing problems in evidence.	1/7/2011	Rejected	he is right but that is not what this specification is addressing.
461	Russ Shaber	CO	2.9.2	This is prescribed by local building codes and should be left up to local Mechanical and Building inspectors..	1/7/2011	Rejected	We can't defer our responsibility to others
462	Russ Shaber	CO	2.9.4	This should be done as a diagnostic procedure, if there is indication that there is a lack of combustion air. It should not be a routine procedure.	1/7/2011	Rejected	Again he is right but this need to be here.
463	Russ Shaber	CO	2.9.6	Ambient CO will be monitored by CO monitor.	1/7/2011	Rejected	They are being provided
464	Joe Hall	CO	3.1.5	need to have a spotter to observe the insulator in a confined attic.	1/7/2011	Rejected	This is good practice, but not appropriate for a standard.
465	Charlotte Brody	VA	3.1.7	Here and throughout this section, cites need to be provided that provide the reader with information about low VOC and less toxic sealants. Reposting (the website is not working properly)	1/4/2011	Rejected	Same as above
466	Charlotte Brody	VA	3.1.7	The PPE language doesn't belong in the chemical safety section. Propose moving it to its own section and stating that Appropriate respirators and other PPE must be provided. Workers must be trained in how to use all equipment and be expected to do so.	1/4/2011	Rejected	Redundant comment
467	Donald Prather	VA	3.10.1 Page 76	Specification should be changed to read: Clothes dryer ducting shall be in accordance with the National Fuel Gas Codes (NFPA) 54 2009, ICC 2009 Standard Mechanical Code and all local code requirements, and in accordance with the applicable standard: SMACNA Sheet Metal Standards, NAIMA and the Fibrous Reason: Prescriptive requirement description as written will not meet the objective.	12/23/2010	Rejected	Reduces usability of the SWS document.
468	Donald Prather	VA	3.10.2 Page 77	Specification should be changed to read: Clothes dryer termination shall be in accordance with the National Fuel Gas Codes (NFPA) 54 2009, ICC 2009 Standard Mechanical Code and all local code requirements, and in accordance with the applicable standard: SMACNA Sheet Metal Standards, NAIMA and the Fibrous Reason: Prescriptive requirement description as written will not meet the objective.	12/23/2010	Rejected	Reduces usability of the SWS document.
469	Donald Prather	VA	3.11.2 Page78	Specification Section should read: NFPA 54 and the OEM equipment directions must be followed on all kitchen exhaust equipment. Reason: Prescriptive statement currently in place will not accomplish the objective because some OEM specifications have specific instruction on outlet screening that may conflict with the instruction given.	12/23/2010	Rejected	Reviewers suggested language does not prohibit recirculating kitchen fans. And, 62.2-2010 is already cited.
470	Donald Prather	VA	3.11.4 Page 78	Specifications Section should read: Kitchen exhaust fans will be mounted and ducted in accordance with the Original equipment Manufacturers directions and in accordance with the ICC 2009 Standard Mechanical Code and all local code requirements. Reason: Prescriptive statement currently in place will not accomplish the objective due to other factors covered in the mechanical codes or OEM designs.	12/23/2010	Rejected	The specification as written is clear and simple. Altering as reviewer recommends gives no direct guidance.
471	Joe Hall	CO	3.11.5	why not make the standard to install and HRV.	1/7/2011	Rejected	Not relevant to this specification
472	Shelley Kawamura	CO	3.14.1	Install intake away from sources of contamination i.e. auto exhaust, trash collection areas and radon/CO exhaust areas	1/7/2011	Rejected	Already covered within specification
473	Donald Prather	VA	3.14.7 Page 84	Specification Section should read: NFPA 54 and the OEM equipment directions must be followed on all equipment air outlets and inlets. Reason: Prescriptive statement currently in place should not accomplish the objective because some OEM specifications have specific instruction on outlet screening that may conflict with the instruction given.	12/23/2010	Rejected	The specification as written is clear and simple. Altering as reviewer recommends gives no direct guidance.
474	Donald Prather	VA	3.14.8 Page 84	Specifications Section should read: Intake locations should be in accordance with ICC 2009 Standard Mechanical Code and local code requirements. Reason: Prescriptive statement currently in place will not accomplish the objective due to other factors covered in the mechanical codes.	12/23/2010	Rejected	This SWS spec as written is from ASHRAE 62.2-2010 and is referenced correctly. An additional reference to the IMC is not needed and might confuse the user.
475	Donald Prather	VA	3.15.1 Page 86	Specification Section should be changed to read: Duct design shall be in accordance with ANSI/ACCA Manual D Residential Duct Systems, 2009 or equivalent ASHRAE design practices Reason: Prescriptive statement currently in place will not accomplish the objective	12/23/2010	Rejected	The specification as written is clear and simple. Altering as reviewer recommends gives no direct guidance.

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476	Joe Hall	CO	3.15.2	r-11	1/7/2011	Rejected	Contradicts the expert panels dicesion, need more support from others to change.
477	Gary Crow	FL	3.15.2	Requiring supply (outdoor air) ducts to be a minimum of R-8 is not necessary.	1/5/2011	Rejected	To accomplish simplicity one R-value is called for.
478	Donald Prather	VA	3.15.3 Page 86	Specification Section should be changed to read: Duct supports must be installed in accordance with SMACNA Sheet Metal Standards, NAIMA and the Fibrous Glass Duct Construction Standards, and the Air Diffusion Council's Flexible Duct Performance & Installation Standards Reason: Prescriptive statement currently in place will not accomplish the objective	12/23/2010	Rejected	The specification as written is clear and simple. Altering as reviewer recommends gives not direct guidance.
479	Gary Crow	FL	3.15.4	For supply ducts attached to the return side of forced air systems - Should consider adding "including return air temperatures" to this statement.	1/5/2011	Rejected	Do not understnd
480	Donald Prather	VA	3.15.4 Page 86	Specification Section should be changed to read: Duct connections must meet SMACNA Sheet Metal Standards, and comply with the ICC 2009 Standard Mechanical Code and all local code requirements. Reason: Prescriptive statement currently in place will not accomplish the objective	12/23/2010	Rejected	The specification as written is clear and simple. Altering as reviewer recommends gives not direct guidance.
481	Donald Prather	VA	3.15.5 Page 87	Specification Section should be changed to read: Duct materials should be designed and installed following SMACNA Sheet Metal Standards and must comply with Original Equipment Manufacturers requirements, the National Fuel Gas Codes (NFPA) 54 2009 and the 2009 ICC International Fuel Gas Code (IFGC) and all local codes. Reason: Prescriptive statement currently in place will not accomplish the objective	12/23/2010	Rejected	The specification as written is clear and simple. Altering as reviewer recommends gives no direct guidance.
482	Donald Prather	VA	3.15.6 Page 88	Specifications Section should read: Terminations will be in accordance with ICC 2009 Standard Mechanical Code and local code requirements. Reason: Prescriptive statement currently in place will not accomplish the objective due to other factors covered in the mechanical codes	12/23/2010	Rejected	The specification as written is clear and simple. Altering as reviewer recommends gives no direct guidance.
483	Joe Hall	CO	3.16.1	this is a duct blaster test, it takes too long to set up for retrofit. pressure pan or subtraction method	1/7/2011	Rejected	Reviewer provided no specific targets for alternative testing. Alternative testing may be used as long as the use ensures that the listed standard is met.
484	Donald Prather	VA	3.16.1 Page 89	Specifications section should read: Air system leakage will be in accordance with ANSI/ACCA 5-2010 QI HVAC Quality Installation Specification, 2010 Reason: Prescriptive statement currently in place will not accomplish the objective is confusing and air handler flow at 10% and at 25 Pascals are two different numbers.	12/23/2010	Rejected	The specification as written is clear and simple. Altering as reviewer recommends gives no direct guidance. Those familiar with measuring air handler flow will not find the spec confusing.
485	Gary Crow	FL	3.16.4	For supply ducts attached to the return side of forced air systems - Should consider adding "including return air temperatures" to this statement.	1/5/2011	Rejected	Do not understnd
486	Donald Prather	VA	3.16.4 Page 90	Specifications Section should read: Intake locations should be in accordance with ICC 2009 Standard Mechanical Code and local code requirements. Reason: Prescriptive statement currently in place will not accomplish the objective due to other factors covered in the mechanical codes.	12/23/2010	Rejected	The specification as written is clear and simple. Altering as reviewer recommends gives no direct guidance.
487	Donald Prather	VA	3.16.6 Page 90	3.16.6 Should be rewritten to say: Installation of a pre-filter should be done in the supply air ducting accordance with ASHRAE 62.2-2010, SMACNA HVAC Duct Construction Standard, NAIMA and the Fibrous Glass Duct Construction Standards, and the Air Diffusion Council's Flexible Duct Performance & Installation Standards Reason: The prescriptive statement goes against all existing design guidance in the HVAC industry. Merv 11 filters are never used in this capacity due to the expense in changing them (shortened life).	12/23/2010	Rejected	The specification as written is clear and simple. Altering as reviewer recommends gives no direct guidance. ASHRAE 62.2-2010 specifies MERV 6, but the writers of the SWS felt MERV 6 is not adequate (many will agree).
488	Donald Prather	VA	3.17.3 Page 92	Specifications Section should read: Equipment should be mounted in accordance with the Original equipment Manufacturers directions and in accordance with the ICC 2009 Standard Mechanical Code and all local code requirements, and in accordance with the applicable standard: SMACNA Sheet Metal Standards, NAIMA and the Fibrous Glass Duct Construction Standards, the Air Diffusion Council's Flexible Duct Performance & Installation Standards Reason: Prescriptive statement currently in place will not accomplish the objective due to other factors covered in the mechanical codes and OEM directions.	12/23/2010	Rejected	The specification as written is clear and simple. Altering as reviewer recommends gives no direct guidance. SWS spec. already states "Fan will be securely mounted according to manufacturer specifications"
489	Donald Prather	VA	3.17.4 Page 92	Specifications Section Should read: Dampers should be installed as per Original Manufacturers directions and in accordance with the ICC 2009 Standard Mechanical Code and all local code requirements, and in accordance with the applicable standard: SMACNA Sheet Metal Standards, NAIMA and the Fibrous Glass Duct Construction Standards, the Air Diffusion Council's Flexible Duct Performance & Installation Standards. Reason: Prescriptive statement currently in place will not accomplish the objective for all intermittent dampers design configurations.	12/23/2010	Rejected	The specification as written is clear and simple. Altering as reviewer recommends gives no direct guidance.
490	Donald Prather	VA	3.17.5 Page 93	Specifications Section should read: Duct connections should be made in accordance with the ICC 2009 Standard Mechanical Code and all local code requirements, and in accordance with the applicable standard: SMACNA Sheet Metal Standards, NAIMA and the Fibrous Glass Duct Construction Standards, the Air Diffusion Council's Flexible Duct Performance & Installation Standards. Reason: Prescriptive statement currently in place will not accomplish the objective.	12/23/2010	Rejected	The specification as written is clear and simple. Altering as reviewer recommends gives no direct guidance.
491	Donald Prather	VA	3.17.6 Page 93	Should be rewritten to say: Installation of a pre-filter should be done in the supply air ducting accordance with ASHRAE 62.2-2010, SMACNA HVAC Duct Construction Standard, NAIMA and the Fibrous Glass Duct Construction Standards, and the Air Diffusion Council's Flexible Duct Performance & Installation Standards Reason: The prescriptive statement goes against all existing design guidance in the HVAC industry. Merv 11 filters are never used in this capacity due to the expense in changing them (shortened life).	12/23/2010	Rejected	The specification as written is clear and simple. Altering as reviewer recommends gives no direct guidance. ASHRAE 62.2-2010 specifies MERV 6, but the writers of the SWS felt MERV 6 is not adequate (many will agree).
492	Donald Prather	VA	3.19.1 Page 97	Specification sections should just cite ASHRAE 62.2 2010 where design factors are covered. Reason: The prescriptive statement does not cover all of the acceptable options and will only provide confusion as to the source document for the program.	12/23/2010	Rejected	Keep SWS document as self-contained as possible
493	Donald Prather	VA	3.19.2 Page 98	Specification sections should just cite ASHRAE 62.2 2010 where design factors are covered. Reason: The prescriptive statement does not cover all of the acceptable options and will only provide confusion as to the source document for the program.	12/23/2010	Rejected	Keep SWS document as self-contained as possible
494	Gary Crow	FL	3.19.3	Local Mechanical Exhaust should still be required in each kitchen and bathroom. This can be part of a single fan whole house ventilation system, but minimum air flows for each kitchen and bathroom still need to be met.	1/5/2011	Rejected	Very good point and observation. Gary's comment conflicts with the expert panel and may require future consideration
495	Donald Prather	VA	3.19.3 Page 98	Specification sections should just cite ASHRAE 62.2 2010 where design factors are covered. Reason: The prescriptive statement does not cover all of the acceptable options and will only provide confusion as to the source document for the program.	12/23/2010	Rejected	Keep SWS document as self-contained as possible

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				Specification sections should just cite ASHRAE 62.2 2010 where design factors are covered.			
496	Donald Prather	VA	3.19.4 Page 99	Reason: The prescriptive statement does not cover all of the acceptable options and will only provide confusion as to the source document for the program.	12/23/2010	Rejected	Keep SWS document as self-contained as possible
497	Donald Prather	VA	3.2.1 Page 60	Reason: Prescriptive statement currently in place will not accomplish the objective	12/23/2010	Rejected	The specification as written is clear and simple. Altering as reviewer recommends gives no direct guidance.
498	Joe Hall	CO	3.2.2	R-11	1/7/2011	Rejected	Contradicts the expert panels decision, need more support from others to change.
499	Gary Crow	FL	3.2.2	A minimum of R-8 for exhaust ducts is extreme. We should only be concerned with condensation forming. Insulated flex with an R-4.2 is successfully used in cold climates. Back draft dampers (located close to the conditioned space) are also typically required in cold climates.	1/5/2011	Rejected	This line also states "or local code." R-8 is required when code does not have a requirement.
500	Gary Crow	FL	3.2.2	A minimum of R-8 for exhaust ducts is extreme. We should only be concerned with condensation forming. Insulated flex with an R-4.2 is successfully used in cold climates. Back draft dampers (located close to the conditioned space) are also typically required in cold climates.	1/5/2011	Rejected	Repeat of above
501	Donald Prather	VA	3.2.3 Page 61	Reason: Prescriptive statement currently in place will not accomplish the objective	12/23/2010	Rejected	The specification as written is clear and simple. Altering as reviewer recommends gives no direct guidance.
502	Donald Prather	VA	3.2.4 Page 61	Reason: Prescriptive statement currently in place will not accomplish the objective	12/23/2010	Rejected	The specification as written is clear and simple. Altering as reviewer recommends gives no direct guidance.
503	Donald Prather	VA	3.2.5 Page 61	Reason: Prescriptive statement currently in place will not accomplish the objective	12/23/2010	Rejected	The specification as written is clear and simple. Altering as reviewer recommends gives no direct guidance.
504	Joe Hall	CO	3.22.1	if you are going to install ventilation, this is the safest most efficient way to do it. make this the standard and drop the rest.	1/7/2011	Rejected	Not feasible
505	Donald Prather	VA	3.22.10 Page 105	Reason: Prescriptive statement currently in place will not accomplish the objective.	12/23/2010	Rejected	The specification as written is clear and simple. Altering as reviewer recommends gives no direct guidance.
506	Donald Prather	VA	3.22.3 Page 103	Reason: Prescriptive statement currently in place will not accomplish the objective for all intermittent dampers design configurations.	12/23/2010	Rejected	The specification as written is clear and simple. Altering as reviewer recommends gives no direct guidance. SWS spec. already states "Fan will be securely mounted according to manufacturer specifications"
507	Donald Prather	VA	3.22.6 Page 104	Reason: Prescriptive statement currently in place will not accomplish the objective.	12/23/2010	Rejected	The specification as written is clear and simple. Altering as reviewer recommends gives no direct guidance.
508	Gary Crow	FL	3.22.7	For supply ducts attached to the return side of forced air systems - Should consider adding "including return air temperatures" to this statement.	1/5/2011	Rejected	Do not understand comment - inadequate context
509	Gary Crow	FL	3.22.8	The verbiage of 3.22.8 should be used throughout the Ventilation section.	1/5/2011	Rejected	Already incorporated within duct specifications for each given ventilation type.
510	Donald Prather	VA	3.23.3 Page 106	Reason: Prescriptive statement currently in place will not accomplish the objective.	12/23/2010	Rejected	The specification as written is clear and simple. Altering as reviewer recommends gives no direct guidance.
511	Jeremy King C.E.M.	VT	3.25.1	Whole House ventilation ductwork that carries conditioned air should be insulated to the same R values as other insulated surfaces in the same area. I could not find the specifications of 3.26.2 in ASHRAE 62.2 2010.	1/5/2011	Rejected	Not always feasible. Insulating ducts to attic levels
512	Gary Crow	FL	3.26.2	ASHRAE 62.2 2010 section 7 defines airflow & sound rating requirements. They are listed as sones, not dBA.	1/5/2011	Rejected	Redundant Comment
513	Jacqueline Germany	NJ	3.3.10	Maintaining IAQ when sealing and insulating the buildings. Creating a tight environment is great but one could be trapping in problems that create poor IAQ	12/20/2010	Rejected	Good point, but nowhere to insert it as a standard. (The referenced section doesn't exist) More to the point, the entire section on ventilation, and much of the combustion safety section, speaks to this.
514	Gary Crow	FL	3.3.5	Other design methods may be used when approved by a licensed design professional.	1/5/2011	Rejected	Comment does not seem to match detail and line referenced
515	Joe Hall	CO	3.5.1	and sealed with caulk.	1/7/2011	Rejected	Covered on line 3.5.7
516	Gary Hodgden	KS	3.5.2	Meanwhile, the content of the topic that has such repeated text is less likely to be consumed in a clear and highlighted manner. I recommend sections that call out the items strongly yet not repeated at the cost of missing other important content.	12/12/2010	Rejected	Really good point regarding repetition, however future use of this document may not be linear requiring repetitive information to be included in each detail.
517	Donald Prather	VA	3.5.3 Page 66	Reason: Prescriptive statement currently in place will not accomplish the objective due to other factors covered in the mechanical codes.	12/23/2010	Rejected	comment only references other standards and would make this particular document difficult to use.

ID	Name	State	Section	Comment	Date	Status	Response
518	Donald Prather	VA	3.5.4 Page 66	Specifications Section should read: Duct to fan connections must be installed in accordance with the Original equipment Manufacturers directions and in accordance with the ICC 2009 Standard Mechanical Code and all local code requirements, and in accordance with the applicable standard: SMACNA Sheet Metal Standards, NAIMA and the Fibrous Glass Duct Construction Standards, the Air Diffusion Council's Flexible Duct Performance & Installation Standards Reason: Prescriptive statement currently in place will not accomplish the objective due to other factors covered in the mechanical codes.	12/23/2010	Rejected	comment only references other standards and would make this particular document difficult to use.
519	Donald Prather	VA	3.5.5 Page 67	Specifications Section should read: Fan housing sealing shall be in accordance with the Original Equipment Manufacturers directions. Reason: Prescriptive statement currently in place will not accomplish the objective due to other factors such as fire safety due to equipment over heating etc.	12/23/2010	Rejected	comment only references other standards and would make this particular document difficult to use.
520	Donald Prather	VA	3.6.3 Page 68	Specifications Section should read: Duct to fan connections must be installed in accordance with the Original equipment Manufacturers directions and in accordance with the ICC 2009 Standard Mechanical Code and all local code requirements, and in accordance with the applicable standard: SMACNA Sheet Metal Standards, NAIMA and the Fibrous Glass Duct Construction Standards, the Air Diffusion Council's Flexible Duct Performance & Installation Standards Reason: Prescriptive statement currently in place will not accomplish the objective due to other factors covered in the mechanical codes.	12/23/2010	Rejected	comment only references other standards and would make this particular document difficult to use.
521	Donald Prather	VA	3.6.4 Page 68	Specifications Section Should read: Back draft Dampers shall be installed as per Original Manufacturers directions and in accordance with the ICC 2009 Standard Mechanical Code and all local code requirements, and in accordance with the applicable standard: SMACNA Sheet Metal Standards, NAIMA and the Fibrous Glass Duct Construction Standards, the Air Diffusion Council's Flexible Duct Performance & Installation Standards. Reason: Prescriptive statement currently in place will not accomplish the objective due to other factors covered in the mechanical codes and OEM directions.	12/23/2010	Rejected	comment only references other standards and would make this particular document difficult to use.
522	Donald Prather	VA	3.6.5 Page 69	Specifications Section should read: Fan housing sealing shall be in accordance with the Original Equipment Manufacturers directions. Reason: Prescriptive statement currently in place will not accomplish the objective due to other factors such as fire safety due to equipment over heating etc.	12/23/2010	Rejected	comment only references other standards and would make this particular document difficult to use.
523	Donald Prather	VA	3.7.3 Page 70	Specifications Section should read: Duct to fan connections must be installed in accordance with the Original equipment Manufacturers directions and in accordance with the ICC 2009 Standard Mechanical Code and all local code requirements, and in accordance with the applicable standard: SMACNA Sheet Metal Standards, NAIMA and the Fibrous Glass Duct Construction Standards, the Air Diffusion Council's Flexible Duct Performance & Installation Standards Reason: Prescriptive statement currently in place will not accomplish the objective due to other factors covered in the mechanical codes.	12/23/2010	Rejected	comment only references other standards and would make this particular document difficult to use.
524	Donald Prather	VA	3.7.5 Page 71	Specifications Section should read: Fan housing sealing shall be in accordance with the Original Equipment Manufacturers directions. Reason: Prescriptive statement currently in place will not accomplish the objective due to other factors such as fire safety due to equipment over heating etc. 3.7.7 Should be deleted	12/23/2010	Rejected	comment only references other standards and would make this particular document difficult to use.
525	Donald Prather	VA	3.7.7 Page 71	Reason: Prescriptive requirement on insulation on exhaust duct does not have any bearing on energy savings for most locations.	12/23/2010	Rejected	This specification is not intended to save energy but assure durability and avoid condensation
526	Donald Prather	VA	3.8.3 Page 72	Specifications Section should read: Exhaust fans will be mounted and ducted in accordance with the Original equipment Manufacturers directions and in accordance with the ICC 2009 Standard Mechanical Code and all local code requirements. Reason: Prescriptive statement currently in place will not accomplish the objective due to other factors covered in the mechanical codes.	12/23/2010	Rejected	comment only references other standards and would make this particular document difficult to use.
527	Donald Prather	VA	3.8.4 Page 73	Specifications Section Should read: Combination intake ducts as per Original Manufacturers directions and in accordance with the ICC 2009 Standard Mechanical Code and all local code requirements, and in accordance with the applicable standard: SMACNA Sheet Metal Standards, NAIMA and the Fibrous Glass Duct Construction Standards, the Air Diffusion Council's Flexible Duct Performance & Installation Standards. Reason: Prescriptive statement currently in place will not accomplish the objective for example ducts upstream of the fan as written.	12/23/2010	Rejected	comment only references other standards and would make this particular document difficult to use.
528	Donald Prather	VA	3.8.5 Page 73	Specifications Section should read: Duct to fan connections must be installed in accordance with the Original equipment Manufacturers directions and in accordance with the ICC 2009 Standard Mechanical Code and all local code requirements, and in accordance with the applicable standard: SMACNA Sheet Metal Standards, NAIMA and the Fibrous Glass Duct Construction Standards, the Air Diffusion Council's Flexible Duct Performance & Installation Standards Reason: Prescriptive statement currently in place will not accomplish the objective. For example ducts upstream of the fan as written would become De facto supply fans (upstream of the fan is under pressure).	12/23/2010	Rejected	comment only references other standards and would make this particular document difficult to use.
529	Donald Prather	VA	3.8.6 Page 73	Specifications Section should read: Duct connections must be installed in accordance with the Original equipment Manufacturers directions, and in accordance with the applicable standard: SMACNA Sheet Metal Standards, NAIMA and the Fibrous Glass Duct Construction Standards, the Air Diffusion Council's Flexible Duct Performance & Installation Standards Reason: Prescriptive statement currently in place will not accomplish the objective. 3.8.7 Should be deleted	12/23/2010	Rejected	comment only references other standards and would make this particular document difficult to use.
530	Donald Prather	VA	3.8.7 Page 73	Reason: Prescriptive requirement on insulation on exhaust duct does not have any bearing on energy savings for most locations.	12/23/2010	Rejected	Comment is true. However SWS is to preserve duct system
531	Greg Nettleton	WI	3.9.1	3.9 This will have impact on programs if garage ventilation is required due substantial increased cost for this non energy conservation measure. Measure will also have a slight energy penalty. May be a good thing to minimize potential IAQ issues from attached garages, but this measure should be considered as an option to the homeowner rather than as a required measure. Would also decrease cost effectiveness of WAP programs and of private market energy retrofits if to be included as a mandatory document.	1/7/2011	Rejected	Comment is not relevant to the scope of the SWS or is not integratable as written
532	Donald Prather	VA	3.9.1 Page 75	Specification Section should read: Garage ventilation designed as per ANSI/ACCA Manual J Residential Load Calculation, 8th ed., 2006 and as per Original Manufacturers directions and in accordance with the ICC 2009 Standard Mechanical Code and all local code requirements, and in accordance with the applicable standard: SMACNA Sheet Metal Standards, NAIMA and the Fibrous Reason: Prescriptive requirement does not cover design elements or all cases and will not work for all design applications. 3.9.2 Should be deleted	12/23/2010	Rejected	comment only references other standards and would make this particular document difficult to use.
533	Donald Prather	VA	3.9.2 Page 75	Reason: The current statement, as is, is not a procedure or a specification and is not directly related to exhaust fans and desired outcome not guaranteed.	12/23/2010	Rejected	It is about exhaust
534	Shelley Kawamura	CO	4.1.4	Should include verbiage about working with spray foams that contain isocyanates – need to stress appropriate respiratory and skin protection	1/7/2011	Rejected	Incorporate into 4.1.2
535	Kevin Frankosky	DE	4.16.3	An air tight enclosure will not permit sufficient dissipation of the heat generated by a light fixture using a high wattage incandescent or halogen lamp. The only sure way to prevent thermal overload of the fixture is to use compact fluorescent or low wattage lamps.	1/3/2011	Rejected	Experience from the field does not agree that air sealing the top will cause thermal overload
536	Simone Lindenbaum	AL	4.17.5	Change Verbiage: 1. The abbreviation (IC) stands for "Insulation Compatible", but is used to connote the term "non-insulation contact". An air tight enclosure will not permit sufficient dissipation of the heat generated by a light fixture using a high wattage incandescent or halogen lamp.	1/6/2011	Rejected	All definitions of IC found reference Insulation Contact rather than insulation compatible
537	Kevin Frankosky	DE	4.17.5	The only sure way to prevent thermal overload of the fixture is to use compact fluorescent or low wattage lamps.	1/3/2011	Rejected	Experience from the field does not agree that air sealing the top will cause thermal overload
538	Russ Shaber	CO	4.2.3	If mechanical ventilation is required in a home that requires an electrical upgrade to get the fan in, it could get very expensive. What if there is no moisture problem to begin with?	1/7/2011	Rejected	The point is that tightening up a home with no apparent moisture problem can create a moisture problem.
539	Simone Lindenbaum	AL	4.2.4	Change Verbiage: 1. Replace "Remaining Tactful" with "Practice Professional Etiquette at all times"	1/6/2011	Rejected	"remaining tactul" comment can not be found in the SWS document
540	Shelley Kawamura	CO	4.21.3	Add self-closing door	1/7/2011	Rejected	Good idea. Best practice rather than standard spec

ID	Name	State	Section	Comment	Date	Status	Response
541	Charlotte Brody	VA	4.23.4	Information on low VOC and less toxic caulks should be cited.	1/4/2011	Rejected	Doesn't seem to be consensus on this
542	Shelley Kawamura	CO	4.4.3	Recommend that sealants be low/no VOC	1/7/2011	Rejected	Doesn't seem to be consensus on this
543	Shelley Kawamura	CO	4.7.2	All sealants should be low/no VOC	1/7/2011	Rejected	Doesn't seem to be consensus on this
544		PA	5.1.6	If a standard power tool is not GFI protected can it be retrofitted? Specification Section: remove the sentence vent will be located after the trap and replace with Vents and traps will be installed as per OEM instructions.	1/4/2011	Rejected	This is a simple matter of using a GFI-protected extension cord.
545	Donald Prather	VA	5.11.5 Page 209	Reason: The placement of the vent depends on the design pressure in the HVAC system and some OEM directions are in opposition of the prescriptive statement.	12/23/2010	Rejected	comment only references other standards and would make this particular document difficult to use.
546	Frank Stanonik	VA	5.12.1	The specification also should require the vent terminal outlet to be above the snow line. Cite ANSI/ACCA 5 -- 2010 QI HVAC Quality Installation Specification	1/7/2011	Rejected	SWS states this The specification as written is clear and simple.
547	Donald Prather	VA	5.13.4 Page 211	Reason: Equipment electrical requirements and inspections are covered in the standard Cite ANSI/ACCA 5 -- 2010 QI HVAC Quality Installation Specification	12/23/2010	Rejected	Altering as reviewer recommends gives no direct guidance. The specification as written is clear and simple.
548	Donald Prather	VA	5.14.1 Page 212	Reason: Data plate information required is covered in the standard Cite ANSI/ACCA 5 -- 2010 QI HVAC Quality Installation Specification	12/23/2010	Rejected	Altering as reviewer recommends gives no direct guidance. The specification as written is clear and simple.
549	Donald Prather	VA	5.16.1 Page 215	Reason: Oil system nozzle size requirements are covered in the standard Cite ANSI/ACCA 5 -- 2010 QI HVAC Quality Installation Specification	12/23/2010	Rejected	Altering as reviewer recommends gives no direct guidance. NFPA 31 is already cited. The specification as written is clear and simple.
550	Donald Prather	VA	5.16.2 Page 215	Reason: Fuel pressure requirements are covered in the standard Cite ANSI/ACCA 5 -- 2010 QI HVAC Quality Installation Specification	12/23/2010	Rejected	Altering as reviewer recommends gives no direct guidance. NFPA 31 is already cited. The specification as written is clear and simple.
551	Donald Prather	VA	5.16.3 through 5.16.8 Pages 216 & 217	Cite ANSI/ACCA 5 -- 2010 QI HVAC Quality Installation Specification Reason: Combustion testing requirements are covered in the standard	12/23/2010	Rejected	Altering as reviewer recommends gives no direct guidance. NFPA 31 is already cited. The specification as written is clear and simple.
552	Donald Prather	VA	5.17.1 through 5.17. Pages 218 & 219	Cite ANSI/ACCA 5 -- 2010 QI HVAC Quality Installation Specification Reason: Balancing requirements are fully covered in the standard	12/23/2010	Rejected	Altering as reviewer recommends gives no direct guidance. NFPA 31 is already cited. The specification as written is clear and simple.
553	Donald Prather	VA	5.17.8 Page 220	Specifications section should read: Temperature testing may be performed as per the ANSI/ACCA 5 -- 2010 QI HVAC Quality Installation Specification and original equipment manufacturers directions. Reason: This method is allowable on some ground water heat pump systems and on most electric	12/23/2010	Rejected	Altering as reviewer recommends gives no direct guidance. Manufacturer's specs are already cited. The specification as written is clear and simple.
554	Donald Prather	VA	5.2.5 Page 186	Specification should read: ANSI/ACCA Manual J Residential Load Calculation, 8th ed. and ANSI/ACCA 5 -- 2010 QI HVAC Quality Installation Specification, and ANSI/ACCA Manual S Residential Equipment Selection, requirements or ASHRAE equivalents should be used for all load calculations. Reason: Manual J Residential Load Calculation, 8th ed., 2006 it is the residential load design manual that is cited in most codes and the QI Standard specifies acceptable design parameters and Manual S covers equipment selection.	12/23/2010	Rejected	If reviewer's comments are added to 5.2.4, they are not needed again here.
555	Donald Prather	VA	5.2.6 Page 186	Specification should read: ANSI/ACCA Manual J Residential Load Calculation, 8th ed. and ANSI/ACCA 5 -- 2010 QI HVAC Quality Installation Specification, and ANSI/ACCA Manual S Residential Equipment Selection, requirements or ASHRAE equivalents should be used for all load calculations. Reason: Manual J Residential Load Calculation, 8th ed., 2006 it is the residential load design manual that is cited in most codes and the QI Standard specifies acceptable design parameters and Manual S covers equipment selection.	12/23/2010	Rejected	If reviewer's comments are added to 5.2.4, they are not needed again here.
556		PA	5.2.7	What residential load calculation software is approved / acceptable?	1/6/2011	Rejected	Standard attempts not to dictate what specific tools may be used
557	Donald Prather	VA	5.2.7 Page 187	Specification should read: ANSI/ACCA Manual J Residential Load Calculation, 8th ed. and ANSI/ACCA 5 -- 2010 QI HVAC Quality Installation Specification, and ANSI/ACCA Manual S Residential Equipment Selection, requirements or ASHRAE equivalents should be used for all load calculations. Reason: Manual J Residential Load Calculation, 8th ed., 2006 it is the residential load design manual that is cited in most codes and the QI Standard specifies acceptable design parameters and Manual S covers equipment selection.	12/23/2010	Rejected	If reviewer's comments are added to 5.2.4, they are not needed again here.
558	Donald Prather	VA	5.2.8 Page 187	Specification should read: ANSI/ACCA Manual J Residential Load Calculation, 8th ed. and ANSI/ACCA 5 -- 2010 QI HVAC Quality Installation Specification, and ANSI/ACCA Manual S Residential Equipment Selection, requirements or ASHRAE equivalents should be used for all load calculations. Reason: Manual J Residential Load Calculation, 8th ed., 2006 it is the residential load design manual that is cited in most codes and the QI Standard specifies acceptable design parameters and airflow requirements and Manual S covers equipment selection.	12/23/2010	Rejected	If reviewer's comments are added to 5.2.4, they are not needed again here.
559	Donald Prather	VA	5.2.9 Page 187	Specification should read: ANSI/ACCA Manual J Residential Load Calculation, 8th ed. and ANSI/ACCA 5 -- 2010 QI HVAC Quality Installation Specification, and ANSI/ACCA Manual S Residential Equipment Selection, requirements or ASHRAE equivalents should be used for all load calculations. Reason: Manual J Residential Load Calculation, 8th ed., 2006 it is the residential load design manual that is cited in most codes and the QI Standard specifies acceptable design parameters and Manual S covers equipment selection and the system ESP design requirements are fully covered in the Standards.	12/23/2010	Rejected	If reviewer's comments are added to 5.2.4, they are not needed again here.
560	Donald Prather	VA	5.20.1 Page 224	Cite ANSI/ACCA 5 -- 2010 QI HVAC Quality Installation Specification Reason: Sequence of operation is covered in the standard	12/23/2010	Rejected	The specification as written is clear and simple. Altering as reviewer recommends gives no direct guidance. Manufacturer's specs are already cited.
561	Donald Prather	VA	5.21.1 through 5.21.7 Pages 225 through 227	Cite ANSI/ACCA 5 -- 2010 QI HVAC Quality Installation Specification Reason: System check procedures and owner education requirements are covered in the standard	12/23/2010	Rejected	The specification as written is clear and simple. Altering as reviewer recommends gives no direct guidance.
562	Donald Prather	VA	5.21.9 Page 227	Cite ANSI/ACCA 5 -- 2010 QI HVAC Quality Installation Specification Reason: Warranty information and owner education requirements are covered in the standard	12/23/2010	Rejected	The specification as written is clear and simple. Altering as reviewer recommends gives no direct guidance.
563	Donald Prather	VA	5.22.3 Page 229	Cite ANSI/ACCA 5 -- 2010 QI HVAC Quality Installation Specification Reason: Owner education requirements are covered in the standard	12/23/2010	Rejected	The specification as written is clear and simple. Altering as reviewer recommends gives no direct guidance.

ID	Name	State	Section	Comment	Date	Status	Response
564	Donald Prather	VA	5.25.1 Page 235	Specifications section should read: Duct Support will be in accordance with the ICC 2009 Standard Mechanical Code and all local code requirements, and in accordance with the applicable standard: SMACNA Sheet Metal Standards, NAIMA and the Fibrous Glass Duct Construction Standards, the Air Diffusion Council's Flexible Duct Performance & Installation Standards. Reason: Prescriptive statement currently in place does not explain fully what standards are being cited and leaves out the ICC code requirements.	12/23/2010	Rejected	The specification as written is clear and simple. Altering as reviewer recommends gives no direct guidance. The SWS spec as written cites SMACNA Standard.
565	Donald Prather	VA	5.26.2 Page 236	Specifications section should be changed to read: Duct Sealing will be in accordance with the applicable standard: SMACNA Sheet Metal Standards, NAIMA and the Fibrous Glass Duct Construction Standards, the Air Diffusion Council's Flexible Duct Performance & Installation Standards. Reason: Prescriptive requirements preclude other acceptable methods of sealing the duct	12/23/2010	Rejected	The specification as written is clear and simple. Altering as reviewer recommends gives no direct guidance.
566	Donald Prather	VA	5.26.3 Page 237	Specifications section should be changed to read: Duct Sealing will be in accordance with the applicable standard: SMACNA Sheet Metal Standards, NAIMA and the Fibrous Glass Duct Construction Standards, the Air Diffusion Council's Flexible Duct Performance & Installation Standards. Reason: Prescriptive requirements preclude other acceptable methods of sealing the duct	12/23/2010	Rejected	The specification as written is clear and simple. Altering as reviewer recommends gives no direct guidance.
567	Donald Prather	VA	5.3.1 Page 188	Specification should read: ANSI/ACCA Manual D Residential Duct Systems, 2009 and ANSI/ACCA 5 -- 2010 QI HVAC Quality Installation Specification, 2010 or ASHRAE equivalent should be used to design duct. Reason: Manual D it is the residential load design manual that is cited in most codes. Additionally, ANSI/ACCA 5 -- 2010 QI HVAC Quality Installation Specification covers sizing and friction rate requirements.	12/23/2010	Rejected	The specification as written is clear and simple. Altering as reviewer recommends gives no direct guidance.
568	Donald Prather	VA	5.3.10 Page 189	Specification should say: Flexible duct should be installed in accordance with the Air Diffusion Council's Flexible Duct Performance & Installation Standards. Reason: Prescriptive statement currently in place will not accomplish the objective due to sizing specifications.	12/23/2010	Rejected	The specification as written is clear and simple. Altering as reviewer recommends gives no direct guidance.
569	Donald Prather	VA	5.30 Page 241	Detail Name: Dual Cooling Up Ducts recommend dropping this section because the reference is unclear for residential applications. At the very least a definition of Dual Cooling Up Ducts for residential applications should be in the glossary. Cite ANSI/ACCA 5 -- 2010 QI HVAC Quality Installation Specification	12/23/2010	Rejected	This term is understood by the climate region
570	Donald Prather	VA	5.31.7 Page 243	Reason: ESP test requirements are covered in the standard	12/23/2010	Rejected	The specification as written is clear and simple. Altering as reviewer recommends gives no direct guidance.
571	Jeremy King C.E.M.	VT	5.33.1	Specifying that metal ductwork located outside the thermal envelope be minimum R8 is grossly inadequate. Ductwork should be insulated to at least the minimum R value required for other similar surfaces; if the attic must be insulated to R49 or greater the Ductwork should also be insulated to at least R49, if R20+ wall insulation is required then the ductwork should be at least R20, etc. Conditioned air in a ductwork system has higher energy intensity by virtue of increased delta T and increased conductance by moving air in the ducts. As written the specification will result in homes with hundreds of square feet of grossly underinsulated attic surface that will be difficult and expensive to upgrade as a retrofit measure. Requiring higher R values will either force designers and contractors to modify designs such that the ductwork is kept within the thermal envelope or is kept close enough to the attic insulation that it can be buried in additional attic insulation at small expense. Badly insulated ductwork run through unconditioned spaces adjacent to walls or floors will be more difficult to treat as a retrofit measure on a cost effective basis; the solution is to keep the ductwork inside the thermal envelope	1/5/2011	Rejected	Insulating to full R value and bringing ducts within the conditioned space in all cases is not feasible. Burying ductwork under insulation in hot humid climates can cause condensation to form.
572		PA	5.37.3	PA State regulations prohibit selection of fuel type	1/6/2011	Rejected	
573	Simone Lindenbaum	AL	5.37.9	Edit: The circulator pump should be upstream of the bladder expansion tank, not vice versa. Specifications recommend adding the wording: All work will be performed by a licensed HVAC or plumbing contractor.	1/6/2011	Rejected	Inconsistent with expert opinion - and other review comments
574	Donald Prather	VA	5.39.3	Reason: Other not qualified to remove or install gas valves Cite: cite ANSI/ACCA 4 -- 2007 Maintenance of Residential HVAC Systems in One- and Two-Family Dwellings Less Than Three Stories, 2007	12/23/2010	Rejected	should fall to local codes, laws and standards
575	Donald Prather	VA	5.39.4 through 5.39.6 Page 257	Reason: It is the only ANSI recognized Standard on residential HVAC equipment maintenance requirements.	12/23/2010	Rejected	SWS spec already cites valid resources.
576		PA	5.39.5	Dust, debris could be challenges in the housing stock of target group.	1/6/2011	Rejected	Comment is not relevant to the scope of the SWS or is not integratable as written
577	Frank Stanonik	VA	5.39.6	The specification for row 6 references the IFGC for the first time anywhere in this Section. The proper reference should be the National Fuel Gas Code.	1/7/2011	Rejected	Section 504 is a direct reference to the IFGC
578		PA	5.4.5	What equipment disposal laws take precedence and who makes determination?	1/6/2011	Rejected	Changed wording slightly for clarity purposes
579	Donald Prather	VA	5.40.4 Page 260	Specifications section; add the wording or as per equipment manufacturers directions, local code requirements and related ICC mechanical and plumbing code requirements and cite ANSI/ACCA 4 -- 2007 Maintenance of Residential HVAC Systems in One- and Two-Family Dwellings Less Than Three Stories, 2007 Reason: It is the only ANSI recognized Standard on residential HVAC equipment maintenance requirements and prescriptive pressure settings may not provide water flow as required by the design requirements Specifications cite ANSI/ACCA 4 -- 2007 Maintenance of Residential HVAC Systems in One- and Two-Family Dwellings Less Than Three Stories, 2007	12/23/2010	Rejected	The specification as written is clear and simple. Altering as reviewer recommends gives no direct guidance.
580	Donald Prather	VA	5.40.8 Page 261	Reason: Prescriptive requirement as listed may not meet local code requirements for example: if power is cut off to the boiler and not just the burner and fuel pump etc, the required boiler make up water pump/solenoid valve or alarm could be disconnected. Specifications should also cite the relevant ASME Boiler safety requirements	12/23/2010	Rejected	The specification as written is clear and simple. Altering as reviewer recommends gives no direct guidance.
581	Donald Prather	VA	5.40.9 Page 262	Reason: Low water cut off design is covered in ASME Standards	12/23/2010	Rejected	The specification as written is clear and simple. Altering as reviewer recommends gives no direct guidance.
582	Donald Prather	VA	5.7.8 Page 197	Specification should say: Joints will be sealed in accordance with: the ICC 2009 Standard Mechanical Code and all local code requirements, and in accordance with the applicable standard: SMACNA Sheet Metal Standards, NAIMA and the Fibrous Glass Duct Construction Standards, the Air Diffusion Council's Flexible Duct Performance & Installation Standards. Reason: Prescriptive statement currently in place will not accomplish the objective due the specification of one product and a gap size.	12/23/2010	Rejected	The specification as written is clear and simple. Altering as reviewer recommends gives no direct guidance. The products specified by SWS and available and effective.
583	Donald Prather	VA	5.8.10 Page 201	Specification should say: Terminals shall be in compliance with ANSI/ACCA 5 -- 2010 QI HVAC Quality Installation Specification design requirements and selected based on ACCA Manual T Air distribution basics, OEM design values and ASHRAE guidance. Reason: Reason: Prescriptive statement currently in place will not accomplish the objective.	12/23/2010	Rejected	The specification as written is clear and simple. Altering as reviewer recommends gives no direct guidance.
584	Joe Hall	CO	5.8.11	install filter grills in returns to better ensure filters are changed or cleaned regularly	1/7/2011	Rejected	Does not fit well in this detail, dependant upon duct design.
585	Donald Prather	VA	5.8.12 Page 201	ANSI/ACCA 5 -- 2010 QI HVAC Quality Installation Specification should also be added as the reference for ESP design requirements	12/23/2010	Rejected	The specification as written is clear and simple. Altering as reviewer recommends gives no direct guidance.
586	Frank Stanonik	VA	5.8.16	This addresses room pressure balancing. It seems that if this practice is implemented, concerns about depressurization are minimized.	1/7/2011	Rejected	Comment is not relevant to the scope of the SWS or is not integratable as written

ID	Name	State	Section	Comment	Date	Status	Response
587	Donald Prather	VA	5.8.16 Page 202	Specification should read: Airflow shall be balance in accordance with ANSI/ACCA 5 -- 2010 QI HVAC Quality Installation Specification, 2010 or ASHRAE equivalent and return duct systems will be designed in accordance with ANS/ACCA Manual D Residential Duct Systems, 2009 Reason: Existing standards need to be used rather than prescriptive methods that may or may not work for all applications.	12/23/2010	Rejected	The specification as written is clear and simple. Altering as reviewer recommends gives no direct guidance. The SWS specification is considered standard procedure.
588	Joe Hall	CO	5.8.18	make it measurable 2pac on pressure pan.	1/7/2011	Rejected	5.8.18 Duct Sealing, does not have pressure pan pressures. Reviewer does not give reason for a pressure pan number of 2.
589	Donald Prather	VA	5.8.4 Page 199	Duct Support will be in accordance with the ICC 2009 Standard Mechanical Code and all local code requirements, and in accordance with the applicable standard: SMACNA Sheet Metal Standards, NAIMA and the Fibrous Glass Duct Construction Standards, the Air Diffusion Council's Flexible Duct Performance & Installation Standards. Reason: Prescriptive statement currently in place does not explain fully what standards are being cited and leaves out the ICC code requirements.	12/23/2010	Rejected	The specification already cites specific standards regarding support.
590	Donald Prather	VA	5.9.7 Page 204	Specification section change wording to say: Supplementary heat will not be wired to operate as a separate stage. Reason: Prescriptive instructions do not allow for additional stages in the heating sequence.	12/23/2010	Rejected	Checked with leader of expert panel and his comment: We want the backup heat to stay off until its needed, This means a lock out device of some type
591	Donald Prather	VA	5.9.7 Page 204	Specification should read: Heat pump supplemental heat will be designed to operate in accordance with ANSI/ACCA Manual S and ASHRAE design standards. Reason: Prescriptive design as given will not result in maximizing energy efficiency for all locations	12/23/2010	Rejected	The specifications 5.9.6 through 5.9.13 cover the control requirements well.
592	Henri Fennell	VT	6. INSULATION	I am looking for a standard for the best practices for installing spray-applied polyurethane foam. I have been tasked with locating and assessing existing standards (protocols, guidelines, etc.) to adopt as the standard to be referenced and followed for all CSG work. I do not find this product listed in the Insulation section of the NREL document. Can you tell me where to find a standard for this material? Thank you, Henri	12/20/2010	Rejected	Comment is not relevant to the scope of the SWS or is not integratable as written
593	Matt Redmond	NY	6.1.10	The use of plastic sheeting in the winter can be very dangerous, slip and fall accidents may occur. Other options should be investigated	1/7/2011	Rejected	Current language simply recognizes the potential hazard and urges caution if it's used.
594	Jim Urtz	CT	6.1.13	Suggest adding "A blower door will not be operated" or similar to the bulleted list.	1/7/2011	Rejected	Comment does not seem to address the section referenced.
595	Jim Urtz	CT	6.1.4	recommend changing to read that removable protective clothing be worn at all times during insulation activities, and not just when contaminants are present as it states now. In addition to preventing the spread of contaminants, they are also useful for containing dust and dirt to one area and keeping the remainder of the residence clean	1/7/2011	Rejected	This may be best practice, but not minimum standard
596	Matt Redmond	NY	6.10.4	Dense packing under kneewalls may be considered as well as filling the entire cavity across the house on the gable ends to air seal the rim joist	1/7/2011	Rejected	Comment does not seem to address the section referenced.
597	roberto casini	DE	6.16.3 page 148	Conduction is not an effective method of heat dispersion especially if the cover is air sealed since the still air within the enclosure acts as a very good insulator. Tests show that any kind of air tight enclosure, even made out of non-insulating material with an R-value below 0.5 will cause the light to overheat. The only effective way of preventing thermal overload of the lamp is by using energy efficient bulbs such as compact fluorescent. Energy efficient lamps run cooler therefore can be buried with insulation if properly protected by a cover made out of high temperature resistant material.	1/3/2011	Rejected	Comment is not relevant to the scope of the SWS or is not integratable as written
598	Donald Prather	VA	6.2 Page 276	Detail Name should be changed to: Non insulation contact (Non-IC) and Insulation contact(IC) Recessed light Reason: Clarification of fixture types discussed in following sections	12/23/2010	Rejected	This detail only refers to non - IC rated fixtures - title seems to be correct.
599	Matt Redmond	NY	6.2.1	When encapsulating IC lights, there is a built in circuit breaker that may trip and the light will shut itself down. The heat from the light can not be trapped.	1/7/2011	Rejected	True, but the low R-value specified is to keep that heat from being trapped.
600	Jim Urtz	CT	6.2.2	-- Suggest adding an example of an acceptable top. For instance, is drywall ok to use, as stated in 4.16.3, and if so, what is the acceptable thickness? An air tight enclosure will not permit sufficient dissipation of the heat generated by a light fixture using a high wattage incandescent or halogen lamp.	1/7/2011	Rejected	Standard references that any material with less than .5 R may be used. SWS is not material specific.
601	Kevin Frankosky	DE	6.2.2	The only sure way to prevent thermal overload of the fixture is to use compact fluorescent or low wattage lamps.	1/3/2011	Rejected	Experience from the field does not agree that air sealing the top will cause thermal overload
602	roberto casini	DE	6.2.2 page 276	Conduction is not an effective method of heat dispersion especially if the cover is air sealed since the still air within the enclosure acts as a very good insulator. Tests show that any kind of air tight enclosure, even made out of non-insulating material with an R-value below 0.5 will cause the light to overheat. The only effective way of preventing thermal overload of the lamp is by using energy efficient bulbs such as compact fluorescent. Energy efficient lamps run cooler therefore can be buried with insulation if properly protected by a cover made out of high temperature resistant material. NO specific mention of fire resistance requirement for materials used in conjunction with hot recessed lights. According with the current version flammable materials such as cardboard and plastic can be used as a closure around hot light fixtures, creating an obvious fire hazard. It is widely recognized that only high temperature/fire resistant materials can be used as a closure around hot light fixtures. Surface treatments are not acceptable because they do not guarantee a constant level of performance over a long period of time. The International Standard test for the safe usage of a recessed light protection cover is IEC 60598.1 and 60598.2.2. In essence the back of the cover (not the inside of the enclosure) must not exceed a continuous temperature of 90 deg C as this is considered to be a safe maximum when in contact with combustible materials and insulation.	1/3/2011	Rejected	IEC 60598.1 and 60598.2.2. 90 deg C is 194 deg F and the attic will not reach this temperature nor will the surfaces below insulation.
603	Kevin Frankosky	DE	6.2.3	It is only necessary to keep the insulation materials 3" away from the source of heat (the light can). Since there is no heat generated at the wiring junction box there is no need to be concerned about the clearance from the junction box.	1/3/2011	Rejected	Maintaining 3" and including the entire fixture was for simplicity
604	Rupert Coggon	DE	6.2.3	The 3" clearance does not ensure fire safety, this should be specified by testing to International standard such as IEC 60598 with the associated temperature conditions. Currently we could design a product which would fully meet the criteria as laid out but would be guaranteed to create a fire hazard.	1/6/2011	Rejected	Code calls for 3" clearance. Experience says 3" is OK.
605	Simone Lindenbaum	AL	6.2.4	Remove: 1. Not advisable to use spray foam around a light fixture even with a 3" clearance.	1/6/2011	Rejected	Disagrees with other industry experts.
606	Dennis L. Gordon	NC	6.21.2	The ruff cut area must be durability air sealed.	12/10/2010	Rejected	Seems to be covered in the current standard

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607	Dennis L. Gordon	NC	6.21.3	The complete installed measure will meet a minimum expected live span of twenty years.	12/10/2010	Rejected	Fundamentally changes wording format of SWS document, with nearly identical meaning
608		PA	6.21.5	New Row Title: Ease of use Specification: Any completed measure must be easy for the homeowner to use on an ongoing basis. Avoid use of cumbersome items that are heavy or require multiple steps to enter and re-establish the measure upon leaving the attic.	11/30/2010	Rejected	Very hard to quantify ease of use
609	Matt Redmond	NY	6.23.2	Whole house fans in the NE are kind impractical if you are air sealing your home, they should either be removed or improvements made for seasonal air sealing.	1/7/2011	Rejected	Guideline does not prohibit removal. Guideline is to be used if the attic fan is kept.
610	Donald Prather	VA	6.24.5 Page 308	Reason: Prescriptive statement currently in place will not accomplish the objective because some OEM specifications have specific instruction on outlet screening that may conflict with the instruction given.	12/23/2010	Rejected	NFPA 54, National Fuel Gas Code, has nothing to do with attic venting or screening of attic vents.
611	Matt Redmond	NY	6.28.1	Customer needs to be informed of removing breakables from the outside wall on the interior of the home. Pictures, clocks, mirrors etc	1/7/2011	Rejected	Comment is not relevant to the scope of the SWS or is not integratable as written
612	Jim Urtz	CT	6.28.1	Suggest two additions to preparation: "Interiors walls inspected to be sure they have no openings and are of sufficient structural integrity to withstand the forces of dense packing installation" or similar. And "Exterior cladding such as vinyl or metal siding shall be carefully removed, handled, and stored to prevent damaging it" or similar.	1/7/2011	Rejected	Good comments, but they are hitting on "best practice" which will be targeted in more detail during curriculum development.
613	Jon Dennis	MI	6.28.1	6.28.1 Specifications: Should include injection foam insulation and not be limited to Cellulose & Fiberglass. Reasoning: Injection foam has been used to retrofit homes throughout the US for years. In homes that already have fiberglass blown or batt insulation, dense packing is virtually impossible. In these situations, injection foam is the best upgrade to improve insulation R values and reduce air infiltration	12/30/2010	Rejected	Will be addressed in the foam section
614	Matt Redmond	NY	6.28.2	Use of infrared imaging should be used for verification	1/7/2011	Rejected	Not always feasible
615	Matt Redmond	NY	6.29.3	Pre-inspection of sheetrock looking for bows, spongy spots, cracks or pre-existing nail pops	1/7/2011	Rejected	Does not apply to this section
616	Matt Redmond	NY	6.35.2	Dense packed cellulose should be used in this app because of air movement. Also if there is duct work in these areas the registers should be removed and sealed around the boot for nuisance infiltration	1/7/2011	Rejected	This section is on using batts for this detail
617	Jim Urtz	CT	6.4.3	states that insulation will not be allowed between a dam and a heat generating source unless the material is rated for contact with heat generating sources. If the material is rated for contact with a heat generating source, is there any point to building a dam in the first place? Suggest deleting reference to dam unless the answer is yes.	1/7/2011	Rejected	The dam is to make sure insulation is not in contact
618	Greg Nettleton	WI	6.9.2	"Roof cavities will be blown with loose fill insulation without gaps, voids, compressions, misalignments or wind intrusions." Standard should be modified to include: ceiling cavity shall be dense-packed to seal inaccessible bypasses. Proper material installed at this location shall be either cellulose insulation or short fiber blown fiber glass capable of providing sufficient air sealing barrier in these ceiling assemblies.	1/7/2011	Rejected	Dense pack covered in section 6.10. Prescribing dense pack as the only solution for inaccessible attics may be too limiting.
619	Tolle Graham	MA	7.1.4	require use of removable protective clothing	1/7/2011	Rejected	Seems excessive to require removable protective clothing for any and all work in a basement or crawlspace.
620	Greg Nettleton	WI	7.1.7	"The least toxic suitable material will be chosen" Should installation of chemical material become necessary, use of proper PPE and ventilation will ensure worker/ occupant safety. Adopting this may cause problems with interpretation, as this recommendation is vague and general in nature. If anticipated to be enforceable, this section needs better definition and further guidance for installers regarding feasible materials at these locations.	1/7/2011	Rejected	This is a good idea, but not for this document.
621	Greg Nettleton	WI	7.10.2	This is not currently a practice for WAP installations or Home Performance jobs; should this be offered major logistical problems will exist. Please note that extended service contracts from product vendors often charge 30-40% of the original cost of the consumer product. Note that providing 10 site visits to inspect previously installed installations could easily cost around \$3,000 for travel, inspection and reporting; independent of any repair work being performed by installing organization/contractor. This warranty product, while well intentioned, would likely be priced out of reach for all if not most consumers. Consumers may find it more cost effective to pay out of pocket for this type of warranty work, in the unfortunate event that it should become necessary. Further investigation of product/installation warranty insurance products would be needed to determine practicality of this proposed guideline and to determine market feasibility for consumers.	1/7/2011	Rejected	Detail may need to be omitted form WAP package.
622	Shelley Kawamura	CO	7.12.6	Recommend integrated pest management (IPM) processes	1/7/2011	Rejected	
623	Greg Nettleton	WI	7.12.8	This is not currently a program requirement. This inclusion as a best practice done will limit damage done to crawlspace work, but achieving compliance may be difficult in some instances, especially if equipment replacement is performed under emergency [i.e. no heat] circumstances.	1/7/2011	Rejected	Comment is not relevant to the scope of the SWS or is not integratable as written
624	Greg Nettleton	WI	7.13.1	This is stricter than guidelines/best practices currently in place. The 1" rule may be overly restrictive and may not always be reasonably achieved. Clarification is also needed on the party responsible for the removal of debris over 1": customer or installer. Will result in deferral and denial of service where the work could have safely been completed. Rocks, and debris that are not sharp or dangerous should be allowed to be covered with plastic and in order to allow work to proceed where these materials cannot be reasonably removed. This measure has no energy savings associated with it, and will increase cost of installations and again may limit consumer participation if the burden of this extensive debris removal is placed upon the occupant/homeowner.	1/7/2011	Rejected	Contradicts expert panel
625	Greg Nettleton	WI	7.14.1	These are all sound recommendations to make to a homeowner pursuing energy retrofit work, but adaptation into WAP program or Home Performance delivery as a required protocol will limit participation. Installing sump pumps, drains, and correcting grading issues exceeds the intent of the WAP program and will further increase retrofit job costs without direct energy savings. This will limit consumer participation if this is to be considered a required measure of WAP delivery. Current delivery of local WAP program includes supplemental moisture inspection when adverse conditions are noted, and where severe in nature, services are deferred. In the private Home Performance delivery, these items are already required components of the assessment, and while recommendations should be made to occupant/homeowner, inclusion as required measures in a scope of retrofit work will again limit participation, and further reduce savings to investment ratios on installations.	1/7/2011	Rejected	Comment is not relevant to the scope of the SWS or is not integratable as written
626	Greg Nettleton	WI	7.14.3	These are all sound recommendations to make to a homeowner pursuing energy retrofit work, but adaptation into WAP program or Home Performance delivery as a required protocol will limit participation. Installing sump pumps, drains, and correcting grading issues exceeds the intent of the WAP program and will further increase retrofit job costs without direct energy savings. This will limit consumer participation if this is to be considered a required measure of WAP delivery. Current delivery of local WAP program includes supplemental moisture inspection when adverse conditions are noted, and where severe in nature, services are deferred. In the private Home Performance delivery, these items are already required components of the assessment, and while recommendations should be made to occupant/homeowner, inclusion as required measures in a scope of retrofit work will again limit participation, and further reduce savings to investment ratios on installations.	1/7/2011	Rejected	Comment is not relevant to the scope of the SWS or is not integratable as written
627	Greg Nettleton	WI	7.14.4	These are all sound recommendations to make to a homeowner pursuing energy retrofit work, but adaptation into WAP program or Home Performance delivery as a required protocol will limit participation. Installing sump pumps, drains, and correcting grading issues exceeds the intent of the WAP program and will further increase retrofit job costs without direct energy savings. This will limit consumer participation if this is to be considered a required measure of WAP delivery. Current delivery of local WAP program includes supplemental moisture inspection when adverse conditions are noted, and where severe in nature, services are deferred. In the private Home Performance delivery, these items are already required components of the assessment, and while recommendations should be made to occupant/homeowner, inclusion as required measures in a scope of retrofit work will again limit participation, and further reduce savings to investment ratios on installations.	1/7/2011	Rejected	Comment is not relevant to the scope of the SWS or is not integratable as written
628	Greg Nettleton	WI	7.14.5	These are all sound recommendations to make to a homeowner pursuing energy retrofit work, but adaptation into WAP program or Home Performance delivery as a required protocol will limit participation. Installing sump pumps, drains, and correcting grading issues exceeds the intent of the WAP program and will further increase retrofit job costs without direct energy savings. This will limit consumer participation if this is to be considered a required measure of WAP delivery. Current delivery of local WAP program includes supplemental moisture inspection when adverse conditions are noted, and where severe in nature, services are deferred. In the private Home Performance delivery, these items are already required components of the assessment, and while recommendations should be made to occupant/homeowner, inclusion as required measures in a scope of retrofit work will again limit participation, and further reduce savings to investment ratios on installations.	1/7/2011	Rejected	Comment is not relevant to the scope of the SWS or is not integratable as written

ID	Name	State	Section	Comment	Date	Status	Response
629	Greg Nettleton	WI	7.16.1	Many crawlspaces have poured concrete floors and act as short basements. The intent here is fine if the floor is the thermal boundary (where the insulation is) however a majority of crawlspace treatments in northern climate zones involve sealing and insulating at the exterior foundation wall which would make this specification unnecessary. Specification should state that this measure need not apply to crawlspaces brought into conditioned space or where sufficient pressure boundary exists (i.e. poured concrete/walls, complete moisture barrier installed.)	1/7/2011	Rejected	True, but it is not the intent of these SWSs to instruct best practice.
630	Matt Redmond	NY	7.19.1	Sometimes the vapor barrier needs to be installed first to ensure the safety of the installers. Any damage done to the barrier will be repaired after the installation.	1/7/2011	Rejected	In this case you would not be installing a vapor barrier, but a protective barrier for the workers. Using the vapor barrier to protect the workers could compromise the vapor barrier. Hazardous materials should be removed or addressed with PPE.
631	Donald Prather	VA	7.2.1 Page 333	Specifications: Cite requirements from Original Equipment Manufacturers data, the National Fuel Gas Codes (NFPA) 54 2009 and the 2009 ICC International Fuel Gas Code (IFGC) Reason: Gives direction lacking in the prescriptive statement.	12/23/2010	Rejected	The specification as written is clear and simple. Altering as reviewer recommends gives no direct guidance.
632	Greg Nettleton	WI	7.29.3	This should not be adopted as a required specification for weatherization or Home Performance installation delivery, but in place should be added as an additional offering that homeowner might consider pursuing or for program to consider where adequate funding exists.	1/7/2011	Rejected	Comment is not relevant to the scope of the SWS or is not integratable as written
633	Greg Nettleton	WI	7.29.3	This should not be adopted as a required specification for weatherization or Home Performance installation delivery, but in place should be added as an additional offering that homeowner might consider pursuing or for program to consider where adequate funding exists.	1/7/2011	Rejected	Comment is not relevant to the scope of the SWS or is not integratable as written
634	Donald Prather	VA	7.29.3 and 729.4 Page 371	Recommend changing Specifications section to read: All conditioned space will be designed utilizing ANSI/ACCA 5 -- 2010 QI HVAC Quality Installation Specification, 2010, ANSI/ACCA Manual D Residential Duct Systems, 2009, ANSI/ACCA Manual J Residential Load Calculation, 8th ed., 2006, and ANSI/ACCA Manual S Residential Equipment Selection, 1995 or the ASHRAE equivalent. Reason: Prescriptive methods described are based on rules of thumb and will not always produce the required objective	12/23/2010	Rejected	The specification as written is clear and simple. Altering as reviewer recommends gives no direct guidance.
635	Greg Nettleton	WI	7.29.5	This should not be adopted as a required specification for weatherization or Home Performance installation delivery, but in place should be added as an additional offering that homeowner might consider pursuing or for program to consider where adequate funding exists.	1/7/2011	Rejected	Comment is not relevant to the scope of the SWS or is not integratable as written
636	Greg Nettleton	WI	7.29.6	This should not be adopted as a required specification for weatherization or Home Performance installation delivery, but in place should be added as an additional offering that homeowner might consider pursuing or for program to consider where adequate funding exists. Additionally, opportunity present to interlock to ventilation and or dehumidification systems for increased effectiveness. Alternatively, installation of humidity monitoring may .	1/7/2011	Rejected	Comment is not relevant to the scope of the SWS or is not integratable as written
637	Donald Prather	VA	7.33.5 Page 379	Specifications: Recommend changing design requirements to less than 55% Reason: Numerous studies and ASHRAE comfort sheets show 50% RH as perfect for humans. Requiring a larger piece of equipment designed to maintain a RH of 45% seems counterproductive in the area of energy savings.	12/23/2010	Rejected	Contradicts expert panel
638	Greg Nettleton	WI	7.6.2	This is not currently a requirement. The choice to install a lock should be up to the owner not a requirement for the weatherization or Home Performance delivery and should not be a requirement for program participation.	1/7/2011	Rejected	Contradicts expert panel. Intent is to put ownership of the performance of the closed crawlspace in the occupants hands.
639	Greg Nettleton	WI	7.7.1	State WAP program currently requires have a one year warranty and relates information regarding the crawlspace to the occupants/owner in the customer guidebook. Home Performance contractors, as private market contractors, establish their own warranty terms, and may be able to provide extended warranties as funding for work is not tied to a specific annual contract period. The 10 year service life will substantially increase cost of installation due to additional funds that would be required to provide this warranty. The issue outlined here already has substantial recourse from the homeowner via private market insurance when installation is completed by contractors who are trained and insured to install insulation shell improvements.	1/7/2011	Rejected	Contradicts expert panel.
640		PA	8.1.7	Prevention of worker exposure to toxic substances will require extensive employee training program. These are the recommended objectives that match the previously submitted recommendations for the 8.1.1 Specifications column.	1/6/2011	Rejected	Valid comment. Doesn't alter the standards.
641	Keith Burkhardt	KY	8.11.1	Satisfied consumers Provide the consumer the most cost effective water heating solution. Lower lifetime ownership cost of the water heater...Lower monthly utility bills. Take advantage of the energy efficiency and environmental friendliness of renewable energy sources. Save energy, reduce annual operating costs, reduce total life cycle cost. Save energy, reduce annual operating costs, reduce total life cycle cost. Properly vent combustion gases. Minimize undesirable combustion byproducts. Complete and accurate total lifecycle cost analysis. Maximize energy savings. Maximize energy savings. Ensure product longevity. Maximize energy savings.	1/7/2011	Rejected	Many of the comments already exist in the current standard, and others such as properly vent combustion gasses, are included in other details within this body of SWS.
642	joseph curran	IL	8.13.1	How does the auditor determine what is asbestos in a home?	11/16/2010	Rejected	A reasonable question. As with many things, how the standards are implemented need to be defined.
643	Donald Prather	VA	8.16.1 Page 425	Reference section should State: Testing to make sure that gas appliances are operating safely should be done by trained technicians utilizing the original equipment manufacturers installation instructions and venting design requirements in conjunction with all applicable local and national gas codes. NEC violations will be done following the national electrical Code and local code requirements by a licensed technician/contractor. Reason: NEC violations should be addressed by following the national electric code and local code requirements. Appliance Zone Test (CAZ) is not in the glossary and has no singular one size fits all HVAC industry recognized standard definition. Additionally, there are currently no HVAC industry wide universally accepted one size fits all combustion testing standards. Testing to make sure that gas appliances are operating safely should be done by trained technicians utilizing the original equipment manufacturers installation instructions and venting design requirements in conjunction with all applicable local and national gas codes. Some nationally recognized tests incorrectly state that the EPA and ASHRAE allow 9ppm of CO in a residential environment. The 9ppm is for an 8 hour exposure in a work environment where it is assumed the worker will leave thus allowing the CO level in the blood stream to reduce over the 16 hours in a day. CO levels should be less than 5ppm and preferably at 0ppm for residential living space.	12/23/2010	Rejected	Not consistent with consensus of the working group
644	Jim Urtz	CT	8.18.1	While a good idea, and helpful, believe the planting of shade trees is outside the scope of this document.	1/7/2011	Rejected	Shading is a good practice where window treatment are not possible

ID	Name	State	Section	Comment	Date	Status	Response
645	Mark Williams	CA	8.5.2	Seems to me you should address exterior lighting separate from interior and make provisions that ensure e.g. use of exterior fixtures that are dark sky and light trespass compliant. In addition it could address controls ... use of PC, but additionally motion sensors or other devices to minimize the on time while maintaining (or even increasing) functionality. Also your guidelines don't address the obvious problem of selecting better light fixtures for the applications ... to improve light quality while minimizing energy use.	1/5/2011	Rejected	Beyond the scope of the current guidelines. A specific "lighting" topic discussion should be considered in the future.
646		PA	8.6.2	Water quality evaluation tests not to exceed off-the-shelf testing capabilities Many definitions in our VAW field guide are not included in this glossary. Suggestion to include frequently encountered building science terms	1/6/2011	Rejected	Seem like an implementation issue, not a standards issue
647	Greg Nettleton	WI	9.Glossary	ACH: Air Changes per Hour ACH50: Air Changes per Hour at 50 Pascals ACHn: Air Changes per Hour natural Add-a-Hole Method: A diagnostic test involving adding a hole of known size to one side of the series leakage path and measuring the pressure differential before and after adding the hole to estimate overall zone leakage. AFUE: Annual Fuel Utilization Efficiency—seasonal furnace or boiler efficiency AGA: American Gas Association Appliance: Any device powered by electricity designed for household use approved by the Division. A typical appliance would be a refrigerator. ASHRAE: American Society of Heating, Refrigeration and Air Conditioning Engineers. Baseload Measures: Energy conservation measures that reduce the daily electrical use of the dwelling unit. An example of a baseload measure is the installation of compact fluorescent lighting devices.BTU: British thermal unit BTUH: BTU consumption per hour CAZ: Combustion appliance zone CFL: Compact fluorescent lamp CFM: Cubic feet of airflow per minute CFM50: Cubic Feet of airflow per minute @ 50 Pascals CO: Carbon Monoxide CO2: Carbon Dioxide Combustion Appliance Zone (CAZ): The area where vented combustion appliances are located. The zone can be located inside or outside the pressure boundary. Conditioned: Heated or cooled by a heating or cooling system at the expense of the occupant	1/7/2011	Rejected	This represents a good verall glossary, but many terms are not used in this body of work.
648	Greg Nettleton	WI	9.Glossary	Add: CRF: Can't Reach Fifty -- Blower Door procedure when 50 Pascals can't be reached Damaged Materials: Materials that are specifically assigned or designated for a specific dwelling unit/job and are damaged and made unusable either during transit to the job site or at the job site. DOE: The United States Department of Energy Energy Audit: An inspection of the dwelling unit that documents its conditions from a thermal, structural, appliance, lighting and safety perspective. This may be based on Required Measures List or the Division approved software program that generates a list of recommended weatherization measures for the dwelling unit, according to the software program's specifications. Energy Conservation Measures (ECMs): The measures installed in a home that return energy cost savings. ECM measures are in contrast with Health and Safety and Repair measures that do not return an energy cost savings benefit. ENERGY STAR: An EPA/DOE program providing incentives for manufacturers to make energy-efficient products and encouraging consumers to buy these products. EPA: Environmental Protection Agency Friable Asbestos: Any asbestos containing product that can be crumbled, pulverized or reduced to powder by hand pressure. GFCI: Ground fault circuit interrupter Heating Costs: Costs of any source of heating in a dwelling unit used for residential heating purposes. All heating costs for commercial, business or any purpose other than the dwelling unit of the applicant are excluded.	1/7/2011	Rejected	This represents a good verall glossary, but many terms are not used in this body of work.

ID	Name	State	Section	Comment	Date	Status	Response
649	Greg Nettleton	WI	9.Glossary	<p>Add:</p> <p>Home Energy: All fuel sources used in a dwelling unit. It includes all heating costs and non-heating costs. Non-heating costs are often referred to on utility bills as baseload costs (the base costs before heating costs are included).</p> <p>HVAC: Heating, ventilation, and air conditioning</p> <p>IFGC: International Fuel Gas Code</p> <p>Infiltration: The uncontrolled air entering the building, usually at the lower portion of the building.</p> <p>IWC: Inches of water column&#8212;a measurement of pressure</p> <p>Key Juncures: Junctions between building components, which require careful sealing and/or insulating, (for example: wall-floor junctions).</p> <p>kW: Kilowatt&#8212;a measurement of electrical power</p> <p>kWh: Kilowatt hour&#8212;a measurement of electrical use</p> <p>Lead Based Paint: Paint that has a lead content of not less than 0.06% by weight or 7 milligrams per sq. cm.</p> <p>Lead Safe Working Conditions: Conditions that meet the OSHA and EPA requirements for adequate protection from lead exposure for both the building occupants and the workers performing the weatherization activities.</p> <p>Make-up Air: Air let into the home intentionally to make up for air being exhausted out of the home by exhaust fans or chimneys.</p> <p>A-6 Appendices</p> <p>Manual J: The ASHRAE method of calculating building heat loss</p> <p>MHEA: Mobile Home Energy Audit&#8212;Energy audit software by DOE for prioritizing weatherization.</p> <p>MSDS: Material safety data sheet, describing the hazards of a material.</p>	1/7/2011	Rejected	This represents a good verall glossary, but many terms are not used in this body of work.
650	Greg Nettleton	WI	9.Glossary	<p>NEAT: National Energy Audit Tool&#8212;Energy audit software by DOE for prioritizing weatherization.</p> <p>NFPA: National Fire Protection Association</p> <p>OSHA: Occupational Safety and Health Administration</p> <p>pa: Pascal</p> <p>Pascal: Metric unit of pressure</p> <p>ppm: Parts per million</p> <p>Pressure Boundary: The air barrier of a home</p> <p>psi: Pounds per square inch</p> <p>PVC: Polyvinyl chloride&#8212;material used in PVC pipe and plastic sheeting.</p> <p>SEER: Seasonal Energy Efficiency Ratio&#8212;a measurement of air-conditioning efficiency.</p> <p>Sone: Measurement of noise used in rating exhaust fans</p> <p>SSE: Steady State Efficiency</p> <p>TESP: Total Exterior Static Pressure</p> <p>Ventilation: The intentional exchange of indoor air with outdoor air to remove pollutants, especially moisture.</p> <p>Venting: The flues, vent connector, and chimney that exhausts combustion gases out of the home.</p> <p>WCEG: Weatherization cost-effective guidelines for air sealing</p> <p>WRT: With reference to</p>	1/7/2011	Rejected	This represents a good verall glossary, but many terms are not used in this body of work.
651	Francis Fragola	NY	all	<p>Long Document, Will take some time to digest and comment on</p>	12/1/2010	Rejected	Comment is not relevant to the scope of the SWS or is not integratable as written
652	Tom Harrison	PA	all	<p>Inspections done in Weatherization program but no follow up to correct errors-work paid for-</p> <p>Audits approved and work done on homes; which were condemned, for sale, owned by landlords who moved tenants who qualified for program around to newly purchased homes in order to get freebies, occupied part time, etc...</p> <p>Program in PA is forced on rate payers to fund; WRAP is paid for \$8,000,000.00- by bill payers--and the so much is wasted--I was paid \$5.00 for every lightbulb I changed - no limit, I was paid for every filter I changed or cleaned, no one checked on me-I used free tools and was told to use them on my own time to make sure my contractor was not my sole employer, I made >\$63,000.00 cash from 1/1/07 to 10/1/07---that was what I made--what did my contractor make for doing nothing...?</p> <p>and the people of my community paid-I quit</p> <p>BPI was created to make money certifying people over and over--no experience required to pass on rebates, no knowledge of the work except from a book and 1 field day ---then you get to offer rebates and someone who has done it 20 years can't?????</p> <p>BPI lied to me about paying for the test "right now because so many people are signing up there won't be any room" there was one other person who came with me and no one else there---they lied to get money---the Federal Govt should not allow a private corporation to be the gatekeeper for Home Performance</p>	12/16/2010	Rejected	Comment is not relevant to the scope of the SWS or is not integratable as written
653	Tom Harrison	PA	all * see above	<p>a few people are getting very rich from company contracts which allow them free equipment and repairs and they use these tools outside of the programs they work in--others have contracts and are paid hourly wages or salaries inside of the same programs concurrently for the same work--they divide the work up over coffee with the utility sitting in and giving it's blessing to this lockout of any new competition---this is in PA-- Chu knows and the PA ATTY GEN knows and the Dept of Energy AG in Pittsburgh knows--but he doesn't know what a Blower Door is so how can he help--as for Chu and Corbett---it's on them</p> <p>to force people to pay \$2300.00 for a course and then \$600 for a test just to apply for a job is outrageous</p> <p>pushing auditing and weatherization for the sake of profit and forcing it on everyone for a price is not ethical and could be challenged in court--I will</p>	12/16/2010	Rejected	Comment is not relevant to the scope of the SWS or is not integratable as written
654	Darrell K. Winters	MS	appendix D	<p>Appendix D should contain references to all relative BPI standards, including BPI 104.</p>	1/7/2011	Rejected	If a BPI standard is not referenced in the specifications, it need not be listed as a reference in Appendix D.

ID	Name	State	Section	Comment	Date	Status	Response
655	Darrell K. Winters	MS	attic, accessible attic floors, 15)	<p>This statement "Insulation will be installed in full contact with all sides of existing cavity without gaps, voids, compressions, misalignments or wind intrusions" could be misinterpreted to preclude the use of properly installed insulation material. Cellulose, spray foam, batts and loose fill can sometimes have minor gaps, voids or compressions that DO NOT affect the performance of the insulation. NAIMA has testing to show that minor anomalies do not affect the label R-value of mineral fiber products. An inspector or code official may use these words to inappropriately degrade a product during an inspection or disallow the installation of a product. These inconsistencies should be eliminated by using only terminology contained and defined in codes and standards.</p> <p>"Wind intrusions" is not a clearly defined term. The existing text also is not clear on how to reduce the effect of high winds on insulation. "Wind intrusions" should be replaced with "and protected from wind with eave baffles."</p> <p>ASTM C1015-06 uses only the term "voids." ASTM C 1320-05 uses "compression," "compressed" and "gaps."</p> <p>The terms "misalignments" and "wind intrusions" are not contained or defined in either of the referenced ASTM specifications; therefore, they should not be used in these guidelines. Additionally, neither C 1015-06 nor C 1320-05 addresses air movement through insulation.</p>	1/7/2011	Rejected	Wind intrusion is currently in the glossary and the expert panel had a representative from NAIMA participate. We believe these anomalies will degrade the overall performance of insulation, not matter the product.
656	Darrell K. Winters	MS	attic, accessible attic floors, 18)	<p>This statement "Insulation will be installed in full contact with all sides of existing cavity without gaps, voids, compressions, misalignments or wind intrusions" could be misinterpreted to preclude the use of properly installed insulation material. Cellulose, spray foam, batts and loose fill can sometimes have minor gaps, voids or compressions that DO NOT affect the performance of the insulation. NAIMA has testing to show that minor anomalies do not affect the label R-value of mineral fiber products. An inspector or code official may use these words to inappropriately degrade a product during an inspection or disallow the installation of a product. These inconsistencies should be eliminated by using only terminology contained and defined in codes and standards.</p> <p>"Wind intrusions" is not a clearly defined term. The existing text also is not clear on how to reduce the effect of high winds on insulation. "Wind intrusions" should be replaced with "and protected from wind with eave baffles."</p> <p>ASTM C1015-06 uses only the term "voids." ASTM C 1320-05 uses "compression," "compressed" and "gaps."</p> <p>The terms "misalignments" and "wind intrusions" are not contained or defined in either of the referenced ASTM specifications; therefore, they should not be used in these guidelines. Additionally, neither C 1015-06 nor C 1320-05 addresses air movement through insulation.</p>	1/7/2011	Rejected	Redundant comment
657	Darrell K. Winters	MS	Attic, Attic ceilings, 7)	<p>The statement "Insulation will be installed in full contact with all sides of existing cavity without gaps, voids, compressions, misalignments or wind intrusions" could be misinterpreted to preclude the use of properly installed insulation material. Cellulose, spray foam, batts and loose fill can sometimes have minor gaps, voids or compressions that DO NOT affect the performance of the insulation. NAIMA has testing to show that minor anomalies do not affect the label R-value of mineral fiber products. An inspector or code official may use these words to inappropriately degrade a product during an inspection or disallow the installation of a product. These inconsistencies should be eliminated by using only terminology contained and defined in codes and standards.</p> <p>"Wind intrusions" is not a clearly defined term. The existing text also is not clear on how to reduce the effect of high winds on insulation. "Wind intrusions" should be replaced with "and protected from wind with eave baffles."</p> <p>ASTM C1015-06 uses only the term "voids." ASTM C 1320-05 uses "compression," "compressed" and "gaps."</p> <p>The terms "misalignments" and "wind intrusions" are not contained or defined in either of the referenced ASTM specifications; therefore, they should not be used in these guidelines. Additionally, neither C 1015-06 nor C 1320-05 addresses air movement through insulation.</p>	1/7/2011	Rejected	Wind intrusion is currently in the glossary and the expert panel had a representative from NAIMA participate. We believe these anomalies will degrade the overall performance of insulation, not matter the product.
658	Darrell K. Winters	MS	Attic, Attic Ceilings, 9)	<p>This statement "Insulation will be installed in full contact with all sides of existing cavity without gaps, voids, compressions, misalignments or wind intrusions" could be misinterpreted to preclude the use of properly installed insulation material. Cellulose, spray foam, batts and loose fill can sometimes have minor gaps, voids or compressions that DO NOT affect the performance of the insulation. NAIMA has testing to show that minor anomalies do not affect the label R-value of mineral fiber products. An inspector or code official may use these words to inappropriately degrade a product during an inspection or disallow the installation of a product. These inconsistencies should be eliminated by using only terminology contained and defined in codes and standards.</p> <p>"Wind intrusions" is not a clearly defined term. The existing text also is not clear on how to reduce the effect of high winds on insulation. "Wind intrusions" should be replaced with "and protected from wind with eave baffles."</p> <p>ASTM C1015-06 uses only the term "voids." ASTM C 1320-05 uses "compression," "compressed" and "gaps."</p> <p>The terms "misalignments" and "wind intrusions" are not contained or defined in either of the referenced ASTM specifications; therefore, they should not be used in these guidelines. Additionally, neither C 1015-06 nor C 1320-05 addresses air movement through insulation.</p>	1/7/2011	Rejected	Wind intrusion is currently in the glossary and the expert panel had a representative from NAIMA participate. We believe these anomalies will degrade the overall performance of insulation, not matter the product.
659	Darrell K. Winters	MS	Attic, Knee walls, 13)	<p>This statement "Insulation will be installed in full contact with all sides of existing cavity without gaps, voids, compressions, misalignments or wind intrusions" could be misinterpreted to preclude the use of properly installed insulation material. Cellulose, spray foam, batts and loose fill can sometimes have minor gaps, voids or compressions that DO NOT affect the performance of the insulation. NAIMA has testing to show that minor anomalies do not affect the label R-value of mineral fiber products. An inspector or code official may use these words to inappropriately degrade a product during an inspection or disallow the installation of a product. These inconsistencies should be eliminated by using only terminology contained and defined in codes and standards.</p> <p>"Wind intrusions" is not a clearly defined term. The existing text also is not clear on how to reduce the effect of high winds on insulation. "Wind intrusions" should be replaced with "and protected from wind with eave baffles."</p> <p>ASTM C1015-06 uses only the term "voids." ASTM C 1320-05 uses "compression," "compressed" and "gaps."</p> <p>The terms "misalignments" and "wind intrusions" are not contained or defined in either of the referenced ASTM specifications; therefore, they should not be used in these guidelines. Additionally, neither C 1015-06 nor C 1320-05 addresses air movement through insulation.</p>	1/7/2011	Rejected	Wind intrusion is currently in the glossary and the expert panel had a representative from NAIMA participate. We believe these anomalies will degrade the overall performance of insulation, not matter the product.

ID	Name	State	Section	Comment	Date	Status	Response
660	Darrell K. Winters	MS	Attic; Exterior Walls	<p>The following language:</p> <p>"Hose outlet pressure will be at least 80 inches of water column (IWC) or 2.9 pounds per square inch (PSI)"</p> <p>appears in the following sections:</p> <p>Topic: Attic Subtopic: Preparation 6) Detail Name: Dense Pack Preparation</p> <p>Topic: Exterior Walls Subtopic: Preparation 28) Detail Name: Exterior Dense Pack</p> <p>Several references are made to ASTM C 1015-06. In Section 7.1.4 of ASTM C 1015-06 it states, "For pneumatic installation, use only equipment compatible with the insulation material, and operate the equipment in accordance with the manufacturer's instructions."</p> <p>Machine selection and settings, as well as any other recommendations or instructions for blowing loose fill insulation, should be specified only by the insulation manufacturer. A single specification is not appropriate for every type of insulation material. The machine settings required in this specification do not match those of NAIMA member companies.</p> <p>The existing language in these guidelines should be replaced with the following:</p> <p>"Insulation will be installed according to manufacturer's installation recommendations and/or instructions. Follow manufacturer's recommendations for blowing machine setup to provide the proper pressure at the hose outlet."</p>	1/7/2011	Rejected	Contradicts expert panel
661	Darrell K. Winters	MS	attic; exterior walls	<p>The following language:</p> <p>"Insulation will be verified to prevent visible air movement using chemical smoke at 50 Pascals of pressure difference"</p> <p>appears in the following sections:</p> <p>Topic: Attic Subtopic: Attic Ceilings 8) Detail Name: Dense Pack Over Pitched Ceilings</p> <p>Topic: Attic Subtopic: Enclosed Attic Floors 19) Detail Name: Dense Pack Installation -- Bonus Room Floor</p> <p>Topic: Attic Subtopic: Enclosed Attic Floors 20) Detail Name: Dense Pack Installation -- Attic Storage Platform</p> <p>Topic: Exterior Walls Subtopic: Preparation 28) Detail Name: Exterior Dense Pack</p> <p>Topic: Exterior Walls Subtopic: Enclosed Exterior Walls 30) Detail Name: Dense Pack Exterior Walls</p> <p>Topic: Exterior Walls Subtopic: Enclosed Exterior Walls</p>	1/7/2011	Rejected	Agree, future training programs will need to address this shortfall
662	Darrell K. Winters	MS	Attic; Exterior Walls	<p>The following language:</p> <p>"Hose outlet pressure will be at least 80 inches of water column (IWC) or 2.9 pounds per square inch (PSI)"</p> <p>appears in the following sections:</p> <p>Topic: Attic Subtopic: Preparation 6) Detail Name: Dense Pack Preparation</p> <p>Topic: Exterior Walls Subtopic: Preparation 28) Detail Name: Exterior Dense Pack</p> <p>Several references are made to ASTM C 1015-06. In Section 7.1.4 of ASTM C 1015-06 it states, "For pneumatic installation, use only equipment compatible with the insulation material, and operate the equipment in accordance with the manufacturer's instructions."</p> <p>Machine selection and settings, as well as any other recommendations or instructions for blowing loose fill insulation, should be specified only by the insulation manufacturer. A single specification is not appropriate for every type of insulation material. The machine settings required in this specification do not match those of NAIMA member companies.</p> <p>The existing language in these guidelines should be replaced with the following:</p> <p>"Insulation will be installed according to manufacturer's installation recommendations and/or instructions. Follow manufacturer's recommendations for blowing machine setup to provide the proper pressure at the hose outlet."</p>	1/7/2011	Rejected	Contradicts expert panel

ID	Name	State	Section	Comment	Date	Status	Response
663	Darrell K. Winters	MS	Attic; Exterior Walls; Floors	<p>the following language:</p> <p>"Insulation will be installed in full contact with all sides of existing cavity without gaps, voids, compressions, misalignments or wind intrusions"</p> <p>appears in the following sections along with a footnoted reference to the shown ASTM standard:</p> <p>Topic: Attic Subtopic: Attic Ceilings 7) Detail Name: Loose Fill Over Pitched Ceilings C 1015-06</p> <p>Topic: Attic Subtopic: Attic Ceilings 9) Detail Name: Unvented Flat Roof with Existing Insulation C 1015-06</p> <p>Topic: Attic Subtopic: Knee Walls 13) Detail Name: Strapping for Existing Insulation C 1320-05</p> <p>Topic: Attic Subtopic: Accessible Attic Floors 15) Detail Name: Batt Installation -- Attic Floors C 1320-05</p> <p>Topic: Attic Subtopic: Accessible Attic Floors 18) Detail Name: Batt Insulation Over Existing Insulation C 1320-05</p> <p>Topic: Exterior Walls Subtopic: Accessible Exterior Walls</p> <p>the following language:</p>	1/7/2011	Rejected	Contradicts expert panel
664	Darrell K. Winters	MS	Attic; Exterior Walls; Floors	<p>"Insulation will be installed in full contact with all sides of existing cavity without gaps, voids, compressions, misalignments or wind intrusions"</p> <p>appears in the following sections along with a footnoted reference to the shown ASTM standard:</p> <p>Topic: Attic Subtopic: Attic Ceilings 7) Detail Name: Loose Fill Over Pitched Ceilings C 1015-06</p> <p>Topic: Attic Subtopic: Attic Ceilings 9) Detail Name: Unvented Flat Roof with Existing Insulation C 1015-06</p> <p>Topic: Attic Subtopic: Knee Walls 13) Detail Name: Strapping for Existing Insulation C 1320-05</p> <p>Topic: Attic Subtopic: Accessible Attic Floors 15) Detail Name: Batt Installation -- Attic Floors C 1320-05</p> <p>Topic: Attic Subtopic: Accessible Attic Floors 18) Detail Name: Batt Insulation Over Existing Insulation C 1320-05</p> <p>Topic: Exterior Walls Subtopic: Accessible Exterior Walls</p> <p>the following language and variations of this:</p>	1/7/2011	Rejected	Contradicts expert panel
665	Darrell K. Winters	MS	attics; floors	<p>"...insulation shall be installed in full [or complete] contact with..."</p> <p>appear in the following sections:</p> <p>Topic: Attic Subtopic: Knee Walls 11) Detail Name: Preparation for Dense Packing</p> <p>Topic: Attic Subtopic: Knee Walls 12) Detail Name: Preparation for Batt Insulation</p> <p>Topic: Attic Subtopic: Knee Walls 13) Detail Name: Strapping for Existing Insulation</p> <p>Topic: Attic Subtopic: Attics General 26) Detail Name: Skylights</p> <p>Topic: Floors Subtopic: Accessible Floors 35) Detail Name: Batt Insulation Cantilevered Floor</p> <p>The terms "in full contact" or "in complete contact" are not used in ASTM C 1320-06 or any of the I-codes. The most frequently used term, "in substantial contact," is used in the 2009 IBC, IRC and IECC and also in ASTM C 1320-06 Section 7.1.5.</p>	1/7/2011	Rejected	Contradicts expert panel
666	Donald Prather	VA	cover	What is the name? Standard Work Specification for Energy Efficiency Residential Upgrades (or Retrofits as in the directions)	12/23/2010	Rejected	Comment is not relevant to the scope of the SWS or is not integratable as written

ID	Name	State	Section	Comment	Date	Status	Response
667	Darrell K. Winters	MS	exterior walls, accessible exterior walls, 29)	<p>This statement "Insulation will be installed in full contact with all sides of existing cavity without gaps, voids, compressions, misalignments or wind intrusions" could be misinterpreted to preclude the use of properly installed insulation material. Cellulose, spray foam, batts and loose fill can sometimes have minor gaps, voids or compressions that DO NOT affect the performance of the insulation. NAIMA has testing to show that minor anomalies do not affect the label R-value of mineral fiber products. An inspector or code official may use these words to inappropriately degrade a product during an inspection or disallow the installation of a product. These inconsistencies should be eliminated by using only terminology contained and defined in codes and standards.</p> <p>"Wind intrusions" is not a clearly defined term. The existing text also is not clear on how to reduce the effect of high winds on insulation. "Wind intrusions" should be replaced with "and protected from wind with eave baffles."</p> <p>ASTM C1015-06 uses only the term "voids." ASTM C 1320-05 uses "compression," "compressed" and "gaps."</p> <p>The terms "misalignments" and "wind intrusions" are not contained or defined in either of the referenced ASTM specifications; therefore, they should not be used in these guidelines. Additionally, neither C 1015-06 nor C 1320-05 addresses air movement through insulation.</p>	1/7/2011	Rejected	Contradicts expert panel
668	Darrell K. Winters	MS	floors, accessible floors, 32)	<p>This statement "Insulation will be installed in full contact with all sides of existing cavity without gaps, voids, compressions, misalignments or wind intrusions" could be misinterpreted to preclude the use of properly installed insulation material. Cellulose, spray foam, batts and loose fill can sometimes have minor gaps, voids or compressions that DO NOT affect the performance of the insulation. NAIMA has testing to show that minor anomalies do not affect the label R-value of mineral fiber products. An inspector or code official may use these words to inappropriately degrade a product during an inspection or disallow the installation of a product. These inconsistencies should be eliminated by using only terminology contained and defined in codes and standards.</p> <p>"Wind intrusions" is not a clearly defined term. The existing text also is not clear on how to reduce the effect of high winds on insulation. "Wind intrusions" should be replaced with "and protected from wind with eave baffles."</p> <p>ASTM C1015-06 uses only the term "voids." ASTM C 1320-05 uses "compression," "compressed" and "gaps."</p> <p>The terms "misalignments" and "wind intrusions" are not contained or defined in either of the referenced ASTM specifications; therefore, they should not be used in these guidelines. Additionally, neither C 1015-06 nor C 1320-05 addresses air movement through insulation.</p>	1/7/2011	Rejected	Contradicts expert panel
669	Darrell K. Winters	MS	floors, accessible floors, 35)	<p>This statement "Insulation will be installed in full contact with all sides of existing cavity without gaps, voids, compressions, misalignments or wind intrusions" could be misinterpreted to preclude the use of properly installed insulation material. Cellulose, spray foam, batts and loose fill can sometimes have minor gaps, voids or compressions that DO NOT affect the performance of the insulation. NAIMA has testing to show that minor anomalies do not affect the label R-value of mineral fiber products. An inspector or code official may use these words to inappropriately degrade a product during an inspection or disallow the installation of a product. These inconsistencies should be eliminated by using only terminology contained and defined in codes and standards.</p> <p>"Wind intrusions" is not a clearly defined term. The existing text also is not clear on how to reduce the effect of high winds on insulation. "Wind intrusions" should be replaced with "and protected from wind with eave baffles."</p> <p>ASTM C1015-06 uses only the term "voids." ASTM C 1320-05 uses "compression," "compressed" and "gaps."</p> <p>The terms "misalignments" and "wind intrusions" are not contained or defined in either of the referenced ASTM specifications; therefore, they should not be used in these guidelines. Additionally, neither C 1015-06 nor C 1320-05 addresses air movement through insulation.</p>	1/7/2011	Rejected	Contradicts expert panel
670	Darrell K. Winters	MS	floors, accessible floors, 36)	<p>This statement "Insulation will be installed in full contact with all sides of existing cavity without gaps, voids, compressions, misalignments or wind intrusions" could be misinterpreted to preclude the use of properly installed insulation material. Cellulose, spray foam, batts and loose fill can sometimes have minor gaps, voids or compressions that DO NOT affect the performance of the insulation. NAIMA has testing to show that minor anomalies do not affect the label R-value of mineral fiber products. An inspector or code official may use these words to inappropriately degrade a product during an inspection or disallow the installation of a product. These inconsistencies should be eliminated by using only terminology contained and defined in codes and standards.</p> <p>"Wind intrusions" is not a clearly defined term. The existing text also is not clear on how to reduce the effect of high winds on insulation. "Wind intrusions" should be replaced with "and protected from wind with eave baffles."</p> <p>ASTM C1015-06 uses only the term "voids." ASTM C 1320-05 uses "compression," "compressed" and "gaps."</p> <p>The terms "misalignments" and "wind intrusions" are not contained or defined in either of the referenced ASTM specifications; therefore, they should not be used in these guidelines. Additionally, neither C 1015-06 nor C 1320-05 addresses air movement through insulation.</p>	1/7/2011	Rejected	Contradicts expert panel
671	Frank Stanonik	VA	General	<p>While this document is intended to focus on energy retrofits there are several areas that address the proper installation and use of residential appliances. The "Acknowledgements" identify several interests but one group that is conspicuous by its absence is appliance manufacturers. Because of that, this document is flawed. It has unnecessary requirements and unjustified restrictions on the types of appliances that may be used and how they are to be installed. It is also suffers from the lack of input from parties that are knowledgeable about the appliance safety standards and installation codes that have existed for over 50 years.</p>	1/7/2011	Rejected	Comment is not relevant to the scope of the SWS or is not integratable as written
672	Jim Urtz	CT	general	<p>LIUNA applauds the DOE for undertaking the massive effort to bring standardization to the Weatherization industry. We feel that this is an extremely important endeavor, and the DOE has, with this document and Job Tasks document, made a huge step in the right direction.</p> <p>We believe that the work specifications document covers all of the work that can be done towards making a home more energy efficient, and in that respect is a very good document.</p> <p>Our concerns are primarily in two areas. First, we have some suggestions concerning worker safety. We also wonder if there is a guidance document being prepared for contractors? Instituting safety measures often incurs training and recordkeeping responsibilities to the contractor. The issuance of respiratory protection is a good example of this. It is very important that all safety-related specifications are carried out according to OSHA regulations, and much of this responsibility falls on the contractors. Second, we have some concerns about the scope of the document. It sometimes seems that in this document as well as in the Job Tasks document that there is not a clear sense of what belongs in the realm of weatherization, what in home performance, and what in green building or operation and maintenance techniques. We believe that including all of these facets causes confusion as to what exactly can be considered to be part of weatherization work, which as we understand it, is the primary purpose of these papers.</p>	1/7/2011	Rejected	Some interesting points. In general, the document is supposed to be inclusive of "energy efficiency" work, which overlaps with "home Performance" and "green." It is designed to be a useful tool to the entire industry, not just the weatherization program.
673	Darrell K. Winters	MS	glossary page 442 (431), row 15	<p>That said, we still believe this to be a very good and important document.</p> <p>In the Glossary on page 442 (431) row 15, the definition of conditioned crawl space includes this statement, "Insulation is located on the exterior walls." Another accepted method for insulating a conditioned crawl space is by insulating the interior walls with batts or foam board, as detailed in this Southface Energy Institute document: www.southface.org/default-interior/Documents/ci-crawlspc00-774.pdf. The definition should be modified to include these methods.</p>	1/7/2011	Rejected	Type of insulation need not be in this section
674	Darrell K. Winters	MS	Glossary page 442(431) row 14	<p>In the Glossary on page 442 (431) row 14, the definition of closed crawl space includes this statement, "Insulation may be located at the conditioned floor level or on the exterior walls." Another accepted method for insulating a closed crawl space is by insulating the interior walls with batts or foam board, as detailed in this Southface Energy Institute document: www.southface.org/default-interior/Documents/ci-crawlspc00-774.pdf. The definition should be modified to include these methods.</p>	1/7/2011	Rejected	Type of insulation need not be in this section

ID	Name	State	Section	Comment	Date	Status	Response
675	Darrell K. Winters	MS	health and safety, safe work practices, 1), row 4	<p>In the following sections:</p> <p>Topic: Health and Safety Subtopic: Safe Work Practices 1) Detail Name: Air Sealing Worker Safety Row 4</p> <p>Topic: Health and Safety Subtopic: Safe Work Practices 1) Detail Name: Heating and Cooling Worker Safety Row 4</p> <p>The bracketed text should be deleted as follows:</p> <p>If contaminants are present, [(e.g. insulation materials)] removable protective clothing will be worn</p> <p>Reason: It is not appropriate to single out one product as a "contaminant." It would be more useful to define what the material properties are for materials which would require a worker to wear protective clothing so the user could identify materials. For example, rigid board insulation should not require protective clothing be worn.</p>	1/7/2011	Rejected	This portion of the worker safety document has been moved to a "global" version making this amount of specificity unneeded.
676	John Shortt	DC	Introduction	<p>HBI urges DOE to expand the number of certification providers in order to ensure access to training nationwide. We believe DOE should encourage all certifications meet criteria agreed to by industry and DOE. Under Technical Standards, several entities are listed who develop standards, regulations and codes for the residential construction industry; however, neither NAHB or HBI is listed. Because NAHB developed the first consensus based ANSI-sanctioned residential green building standard for both new construction and remodeling for the residential construction industry, we believe it is important to specifically reference this standard. To convince the 160,000 NAHB members to adopt certifications not approved by NAHB will be problematic.</p>	1/7/2011	Rejected	Comment is not relevant to the scope of the SWS or is not integratable as written
677	John Shortt	DC	Introduction	<p>The Home Builders Institute, when developing weatherization standards for Entry and Skilled Installation Technicians also conducted an occupational gap analysis. The analysis highlighted current trades occupations that could be retrained to become weatherization installers. HBI urges DOE to conduct a similar study. With construction unemployment at more than 20%, there is no worker shortage.</p>	1/7/2011	Rejected	Comment is not relevant to the scope of the SWS or is not integratable as written
678	Ted A. Williams	DC	Overall Document	<p>The American Gas Association (AGA) has provided extensive comments on the EPA "Healthy Indoor Environment Protocols for Home Energy Upgrades," which are applicable to many of the provisions of this document. Since EPA and DOE are cooperating in the development of these "Work Specifications" and because the commenting format provides no obvious means of sharing AGA comments on the EPA document here, AGA presumes that DOE will review the AGA comments on that draft as well as the comments presented here.</p>	1/7/2011	Rejected	Comment is not relevant to the scope of the SWS or is not integratable as written
679		PA	p 25	<p>RE: Testing for lead-based paint, is an EPA inspector / risk assessor license required at minimum?</p>	1/6/2011	Rejected	Good point, but not in scope of this document
680		PA	p 25	<p>How are we to test for radon?</p>	1/6/2011	Rejected	Good point, but not in scope of this document
681		PA	p 26	<p>RE: Infrared scanning, costs could be prohibitive</p>	1/6/2011	Rejected	
682		PA	p 28	<p>RE: replacing appliances 10 yrs or older, who would pay?</p>	1/6/2011	Rejected	Comment is not relevant to the scope of the SWS or is not integratable as written
683		PA	p. 24	<p>RE: Testing vermiculite for potential asbestos, is a lab test necessary?</p>	1/6/2011	Rejected	Good point, but not in scope of this document
684		PA	p.24	<p>Is a lab test necessary to test for presence of asbestos?</p>	1/6/2011	Rejected	Good point, but not in scope of this document
685	Myron Katz	LA	page 0	<p>I think I should write a letter to DOE pointing out that I have suggested that their document lacks any or substantial treatment of four out of twelve chapters. I would like to be encouraged to write these chapters after I receive a grant from DOE to do it.</p> <p>I believe that DOE should expect to receive highly respectable and competent content from me since I have already proven my worth in a similar process held by RESNET less than six months ago. See previous email.</p> <p>I have provided a very brief description of the content and/or importance of the missing chapters, but otherwise none of that content.... This is true of all suggested chapters except CHAPTER 2.5: MOISTURE CONTROL. I have provided an outline of that chapter in my comments on page 3. (Within the table of contents of the original document.)</p>	1/6/2011	Rejected	Comment is not relevant to the scope of the SWS or is not integratable as written
686	Myron Katz	LA	page 0	<p>DOE Energy Retrofit Guidelines... General Comments by Myron Katz January 7, 2011</p> <ol style="list-style-type: none"> 1. Wrong Building Science. <ol style="list-style-type: none"> a. Missing 1.5 primary Energy Flows: <ol style="list-style-type: none"> i. Totally missing is heat loss/gain by condensation/evaporation ii. 50% missing is heat lose/gain by advection. This is halfway missing because infiltration is discussed but it is not the only example of advection that undermines energy flows in homes. b. Primary Training Text (John Krigger & Chris Dorsi) has all too many Errors of Fact and/or interpretation <ol style="list-style-type: none"> i. E.g. cellulose insulation is accused of being an inferior choice to fiberglass insulation because it tends to absorb moisture. That is an asset&#8212;not a liability. With the result: The best insulation product in the marketplace has been denigrated. ii. See missing energy flows iii. See missing explanation of Energy Conservation iv. See missing proper treatment of Cooling systems c. Primary Text Improperly weighted with content for a narrow climate zone. <ol style="list-style-type: none"> i. It is very important to condemn open crawl spaces: because they always waste energy and threaten the home with severe moisture problems in the southeast. ii. It is very important to condemn forced-air systems in vented attics because they always increase the cooling & heating load and consumption vs all alternatives: including: window units, cathedralized attics, ductless systems etc. iii. HVAC sizing is no where near to importance compared to ensuring that the cooling system is capable to provide deeply file 	1/7/2011	Rejected	Comment is not relevant to the scope of the SWS or is not integratable as written

ID	Name	State	Section	Comment	Date	Status	Response
687	Myron Katz	LA	page 0	DOE Energy Retrofit Guidelines... General Comments by Myron Katz January 7, 2011 Continued 2. BPI is seriously flawed: a. Does not participate in national debate with or like RESNET to find consensus on what should be taught or how to teach it. b. Does not include leaders from the southeast climate zone to utilize input c. Does not respond to requests by southeastern leaders to forge improvements d. Does not create a training program with any serious effort at quality control. e. The whole idea that one can teach how to audit a home within a week is ludicrous. f. The idea that an auditing expert in the north is vaguely competent for the south is even more ludicrous. We need merit badges for each climate zone. However, with the great difference between the building stock in New Orleans and Florida, I don't think we would have enough zones for the merit badges if we only used 8 climate zones.	1/7/2011	Rejected	Comment is not relevant to the scope of the SWS or is not integratable as written
688	Myron Katz	LA	page 0	DOE Energy Retrofit Guidelines... General Comments by Myron Katz January 7, 2011 Continued 3. The national weatherization program is seriously flawed: a. It utilizes BPI content and/or the textbook mentioned above to decide what to teach. b. What I have seen in Louisiana are trainers who are trying very hard to provide an excellent training environment but do not know WHAT to teach. They do a great job of teaching what they teach however. c. The primary error in their approach is: First issue: where should the thermal boundary be? Second issue: How can we safely and cost-effectively move it? Since we don't ASK THESE QUESTIONS, we leave far more potential energy conservation off the table than we eventually fix.	1/7/2011	Rejected	Comment is not relevant to the scope of the SWS or is not integratable as written
689	Myron Katz	LA	page 0	DOE Energy Retrofit Guidelines... General Comments by Myron Katz January 7, 2011 Continued 5. Duct Testing and House leakiness testing/training needs work: a. The (fan pressurization) Duct Blaster test is (or has been) normally taught and utilized assuming incorrectly that the attic pressure is the same as outside pressure. This extremely often creates 10 to 40% errors in this measurement. b. Auditors are not taught to measure the house to attic and or house to crawl space pressure coupling ratio. c. Generalized Subtraction Correction Algorithm has been denigrated without cause, even though for most homes, it out performs the combination of pure blower-door and pure duct-blaster test, requires less time, requires less equipment and creates a paper-trail that enhances quality assurance. The primary barrier to its use WAS, the need for APT or similar equipment, but that has been obviated by embedded hardware and software found in common manometers sold by the Energy Conservancy and its competitors and the large number of mobile computers (whether laptops, cellphones or Ipad) already going to the homes anyway.. needed to control the test.	1/7/2011	Rejected	Comment is not relevant to the scope of the SWS or is not integratable as written
690	Myron Katz	LA	page 0	DOE Energy Retrofit Guidelines... General Comments by Myron Katz January 7, 2011 Continued 6. Sustainability and Green Building are not just fluffy, they are outright dangerous. a. Why allow/promote this stuff when it does none of the following: i. Protect the planet.. namely net zero in energy use ii. Protect the building. Namely ensure that building durability is not only enhanced compared to the building code but with probable effectiveness hundreds of years into the future... iii. Protect PEOPLE. 1000's of people died in their homes twice in my lifetime in my hometown, New Orleans, because our homes failed us. b. These words: sustainability and green are used without definition to the pain of the home purchasing consumer.	1/7/2011	Rejected	Comment is not relevant to the scope of the SWS or is not integratable as written
691	Myron Katz	LA	page 0	DOE Energy Retrofit Guidelines... General Comments by Myron Katz January 7, 2011 Continued 7. DOE needs to fix building codes so that moisture flows are properly treated. I think we got it wrong when we a. Assert that a roof's underlayment should have extremely low permeability for my climate zone. b. Allow open crawl spaces in my climate zone. c. Allow closed cell foam between rafters and even open cell foam there is problematic. d. Require flood vents in crawl space walls in New Orleans. e. Assume that hurricane protection is primarily limited to keeping the roof on and the flying debris out. What about falling trees? f. Assume that blown-in attic floor insulation will be drier or provide a better heat flow barrier if it does not have cover of 1 to 2 mil visqueen.	1/7/2011	Rejected	Comment is not relevant to the scope of the SWS or is not integratable as written
692	Myron Katz	LA	page 1	SECTION 1.5: CONTROL Although energy efficiency will save much energy, much more can be even more cost-effectively saved via control. This energy-conserving mechanism takes advantage of light switches, operable windows, shades, shutters, variable speed fans, etc. Vast amounts of energy can be saved with robustly adjustable HVAC settings that can do zoned conditioning or change the ratio of cooling to dehumidification. Ancillary, television equipment that all turns off with the same controller as the remote for the TV is another means to save prodigious amounts of energy with control. Many control approaches extend the percentage of the day or year when neither heating nor cooling is needed. Although one cannot "GO TO THE BANK" with these savings opportunities, they nevertheless are prodigious and very cost-effective energy savers when utilized by the clever, frugal and/or well-informed resident. OF MAJOR CONSIDERATION IS: The poorest among us usually cannot afford to be comfortable throughout the year while in their homes; thus, maximizing the resident's ability to be comfortable without applied heating or cooling is of tremendous significance. I dare say that even those of us without this financial pressure will be happier and much healthier in a home that is more-commonly naturally-ventilated.	1/6/2011	Rejected	Beyond the current scope for SWSs
693	Myron Katz	LA	page 1	SECTION 2.7: MOVING THE THERMAL BOUNDARY is a missing section. Much, much more commonly than not, the optimal location for the thermal boundary of the existing home was not utilized. Vented attics should be transformed to cathedralized attics; vented crawl spaces should be converted to sealed and enclosed crawl spaces. The former can be expected to reduce infiltration by 10 to 80% and heating and cooling loads by 20 to 50%, the latter is about 1/3 as effective as the former but can be retrofitted at less than 1/5 the cost. The most common and significant technical problem associated with moving the thermal boundary in the attic is the presence of combustion appliancesÔbut this can be overcome: even without replacing 80% efficient equipment. Another very important consideration is integrating the competing needs at the roof, roof deck and insulation system: durability, moisture control, rejecting adverse radiant flows and finally controlling conductive flows. The crawl space must avoid pests and control moisture. Both of these retrofits are much, much easier to inspect, and are far less likely to be violated by a subsequent repair and therefore offer the promise of better results and longer-term durability at lower prices.	1/6/2011	Rejected	Agree. Purpose of SWSs are to dictate work after the work order is made. This education piece will need to be addressed to assist those making the work orders in selecting the preferred applications.
694	Myron Katz	LA	Page 11	In Baseload section. Missing control strategies are a big deal.	1/6/2011	Rejected	Beyond the current scope for SWSs
695	Myron Katz	LA	page 14	Moisture testing is almost as important as Combustion Safety testing: for health, durability, comfort. All missing	1/6/2011	Rejected	Subject was not part of work scope and is a very large effort
696	Myron Katz	LA	page 15	Almost always overlooked in Weatherization training and frequently overlooked in RESNET training is the importance of moving the thermal boundary. This should be mentioned on this page.	1/6/2011	Rejected	Agree. Purpose of SWSs are to dictate work after the work order is made. This education piece will need to be addressed to assist those making the work orders in selecting the preferred applications.

ID	Name	State	Section	Comment	Date	Status	Response
697	Myron Katz	LA	Page 16	Blower door test for the whole house is missing! ???	1/6/2011	Rejected	Testing procedures will be addressed in future SWS work
698	Myron Katz	LA	Page 16	Look for Attic Fans, whether and how they are connected. What temperature turns them on and whether they are currently operating!	1/6/2011	Rejected	Assessment pages to be modified heavily
699	Myron Katz	LA	Page 16	Examine the air-tightness of insulation on metal ducts.	1/6/2011	Rejected	Assessment pages to be modified heavily
700	Myron Katz	LA	Page 16	The section on Combustion Appliance Safety should be followed by a similar set of checks regarding Moisture Safety.	1/6/2011	Rejected	Subject was not part of work scope and is a very large effort
701	Myron Katz	LA	Page 16	What a joke to include Delta Q on this page? It has yet to be accepted. It is doubtful if is better than Generalized Subtraction Correction Algorithm... but that is up for debate.. GSCA belongs here if Delta Q does!	1/6/2011	Rejected	No clear recommendation
702	Myron Katz	LA	Page 16	Measure the house to attic pressure-coupling ratio.	1/6/2011	Rejected	Could not find on page 16 or other pages. Pages don't match what this reviewer is using. Might be assessment which will be in phase 2
703	Myron Katz	LA	Page 16	Measure the Houst to Crawl Space Pressure Coupling Ratio	1/6/2011	Rejected	Could not find on page 16 or other pages. Pages don't match what this reviewer is using. Might be assessment which will be in phase 2
704	Myron Katz	LA	Page 17	Computer simulations are always deficient at pointing out the best solutions! Moving Thermal boundary has only recently become an automated option of RemRate... and this happened only on my request!	1/6/2011	Rejected	Comment is not relevant to the scope of the SWS or is not integratable as written
705	Myron Katz	LA	page 17	Look for the digital cable box notice how hot it is. Not especially refrigerators... It should be especially TV's!	1/6/2011	Rejected	Assessment pages to be modified heavily
706	Myron Katz	LA	Page 17	Baseload: Look for multiple light switches for a gang of lamps for the same room.	1/6/2011	Rejected	Assessment pages to be modified heavily
707	Myron Katz	LA	page 17	Under Moisture Control: Identify insulation installed upside down for this climate. Identify missing airflow barriers for insulation. Identify vinyl wallpaper or other impermeable layers on interior walls. ETC. Identify vented crawl spaces. Identify open or closed cell foam enclosing an attic.	1/6/2011	Rejected	Will be addressed in phase 2
708	Myron Katz	LA	Page 17	There is no mention of optimizing the home's ability to provide comfort at times when neither heating or cooling should be needed. E.G. operable windows with screens!	1/6/2011	Rejected	Will be addressed in phase 2
709	Myron Katz	LA	Page 17	Measure the pressure coupling ratio between the home and the attached garage and explain to the homeowner how CO from the Auto can kill.	1/6/2011	Rejected	This is already included in the assessment as "test zone pressures" Also, can't tell what this relates to to.
710	Myron Katz	LA	Page 18	Look for pocket door and/or windows that connect to attic. Look for balloon framing. Check to see it has been sealed and how well.	1/6/2011	Rejected	Comment is not relevant to the scope of the SWS or is not integratable as written
711	Myron Katz	LA	Page 19	Check the underside of roof to locate roof leaks, poor choice of underlayment and roof decking. You'll need to understand this if you are considering insulating between the rafters. Note the type and age of the roof material.	1/6/2011	Rejected	Will be addressed in phase 2
712	Myron Katz	LA	Page 19	After Conductive losses: There should be a section on Advective losses. There should be a section on Radiant Gains. There should be a section on heat gain by condensation.	1/6/2011	Rejected	Will be addressed in phase 2
713	Myron Katz	LA	page 20	Neither zone control nor variable speed and/or dehumidification-to-cooling ratios are mentioned on this page. BIG MISTAKE!	1/6/2011	Rejected	Assessment pages to be modified heavily
714	Myron Katz	LA	Page 20	No mention of Duct Design. This compares duct cross-section to HVAC size it also considers the quality of duct shape and extent to move air to the whole efficiently and effectively.	1/6/2011	Rejected	Assessment pages to be modified heavily
715	Myron Katz	LA	page 21	Washing machine type: i.e. top-loading vs. front-loading has a vast effect on the need and extent of drying.	1/6/2011	Rejected	Assessment pages to be modified heavily
716	Myron Katz	LA	page 21	What does WAP mean? Suggest the inclusion of Smart meters to be installed in the living room.	1/6/2011	Rejected	Assessment pages to be modified heavily
717	Myron Katz	LA	Page 21	Explain to client that On-demand water heater may not work correctly in the summer and how to fix this.	1/6/2011	Rejected	Assessment pages to be modified heavily
718	Myron Katz	LA	page 21	Blocked Coils can create conditions for Legionaire's Disease.	1/6/2011	Rejected	Should be covered by standard HVAC Assessment
719	Darrell K. Winters	MS	Page 37 (26)	In the chart on page 37 (26), all standards related to insulation in the Conductive Losses Group will affect "Comfort."	1/7/2011	Rejected	Unable to find location of chart on P. 37
720	Myron Katz	LA	page 5	Missing is any reference to sealing blown-in, loose-fill or fiber-batt insulation. Otherwise such insulation becomes an airfilter.	1/6/2011	Rejected	Do not understand comment - chapter covers air sealing
721	Myron Katz	LA	page 6	Completely missing is crawl space sealing.	1/6/2011	Rejected	Do not understand comment - crawl space sealing is covered seperately
722	Myron Katz	LA	page 6	"10 venting system" should be replaced by "10 ventilation system".. Not the same meaning.	1/6/2011	Rejected	Want to ensure combustion venting is not confused with occupant "ventilation systems" - left as is.

ID	Name	State	Section	Comment	Date	Status	Response
723	Myron Katz	LA	page 6	No mention of importance of choosing the right location for the duct system. No mention of DUCT DESIGN... manual S..	1/6/2011	Rejected	Intentionally not covered by expert panel.
724	Myron Katz	LA	Page 6	Hydronic Cooling via fan coils is completely missing even though this is the most energy efficient cooling delivery system for humid climates. I have had such as system in my home since 1986!	1/6/2011	Rejected	beyond the scope of current SWS project
725	Myron Katz	LA	Page 7	No mention of Ductless minisplits or any other kind of distribution system except for Hydronic and Ducted. This is really dumb since it is the most cost-effective way to get zoning and variable dehumidification.. Both are tremendous energy savers!	1/6/2011	Rejected	beyond the scope of current SWS project
726	Myron Katz	LA	Page 9	No mention of integrated radiant barrier and insulation systems to be installed just below the roof deck.	1/6/2011	Rejected	Radiant barriers are covered in 6.25.1 through 4
727	Judy Roberson	CA	Pg 52, Ventilation TOC	Major outline elements Exhaust, Supply, and Whole House Ventilation do not adequately convey the difference between a) spot exhaust for moisture control and continuous exhaust for air exchange, b) spot supply for make up air and continuous supply for air exchange, and balanced ventilation for air exchange. This perpetuates confusion. Suggested outline organization: Exhaust Fans - for moisture control (intermittent) - for air exchange (continuous) Supply Fans - for makeup air (intermittent) - for air exchange (continuous) Balanced Ventilation for air exchange (continuous)	12/22/2010	Rejected	The ventilation section was written to cover all types of ventilation. To list them as suggested would be redundant
728	Myron Katz	LA	rest of document	I have given FOR FREE much more than I should... I'll provide more for a fee. Myron.Katz@EnergyRater.com	1/6/2011	Rejected	Comment is not relevant to the scope of the SWS or is not integratable as written
729	Shelley Kawamura	CO	Section 6	Make recommendations to specify low-emitting insulation that does not contain urea or phenol formaldehyde	1/7/2011	Rejected	Not appropriate for this document
730	Shelley Kawamura	CO	Section 6	More information is needed on environmental health implications of spray foam insulation	1/7/2011	Rejected	Good point, but not for this document
731	Gina Crist	CT	Task 1.2.11	The auditor should identify whether there is insulation material present and if so, what type. This will be considered in determining the best retrofit product to use to improve energy efficiency of the home. These products may include cellulose, fiberglass, injection foam or spray foam.	1/4/2011	Rejected	Will be addressed in phase 2
732	Gina Crist	CT	Task 1.4.7	Evaluate the Walls. Standard work specifications now restrict the auditor to choose between fiberglass and cellulose, but many times neither of these products can be effectively installed - so the choices should be expanded to include injection foam and spray foam insulation.	1/4/2011	Rejected	Will be addressed in phase 2
733	Derek James Heagy	CA		What a bunch of Bureacratic junk. For a dept. designed to conserve energy they completely fail at hitting the mark on this one! I found that they repeat text throughout the body of the book. The workforce doesn't need to be spoon fed on common sense objectives like "how to manage trips and falls." USDOE must think the American worker is a total idiot, that's the only explanation for this wastefull example of federal bueracracy.	11/18/2010	Rejected	Comment is not relevant to the scope of the SWS or is not integratable as written
734	malcolm Drake	OR		 12)Design your landscaping and install underground sprinklers prior to 160;finish grading. Install automatic sprinkler system-one little accident (like 160;forgetting to turn off the water overnight) can waste as much water as you 160;would otherwise use the rest of the irrigation season. It also allows you to 160;use water at all times in a more efficient way, thus reducing your water 160;bills, adding longevity to your pump, and protecting your aquifer. 160; 14)If you are using a slab floor, consider installing pipes in the slab 160;through which all your irrigation water passes, to cool off the slab in the 160;summer. Get someone knowledgeable to design the piping, using manifolds, and make provisions to slide pipes out of sleeves for repair/replacement. 160; 15)Install an air inlet for the wood heater under the floor, which puts fresh 160;air right next to the heater. This will avoid cold drafts coming around doors 160;and windows, and will avoid sucking the very warm air in the vicinity of the 160;heater into the heater. This is required by building codes in some areas. 160;	12/16/2010	Rejected	Good comment, but form a new construction perspective.
735	malcolm Drake	OR		 16)Consider installing a "geothermal" (ground source) heat pump. They 160;are as 160;much as 400% efficient! (this probably sounds counterintuitive, but it's true. They do this by transferring heat/cool from the water, rather than manufacturing it, as a normal electric heater does) They are expensive 160;to buy, but the payback can be 160;fairly short, depending on your individual situation. Also, they do not lose efficiency in very cold weather, as do conventional heat pumps. 160; 17)Evaluate the solar potential of your building site. 160;Avoid building in a 160;frost pocket (I did this on one house, and there was a temperature 160;differential of as much as 28 degrees between my house site and my mailbox, 160;which was 180 feet away) 160; 18)It's often significantly colder in valley bottoms than on hillsides during 160;the winter, which means higher heating requirements for the valley bottom 160;house. This is especially true early in the morning. 160; 160;	12/16/2010	Rejected	Good comment, but form a new construction perspective.
736	malcolm Drake	OR		 19)Consider earth sheltering (north, east, and west sides only); while it's nice to cover the walls and the roof, 160;you can cover only the walls, avoiding a lot of expense, and still have a very 160;significant effect on heating and cooling. My house stays so cool, even though 160;it's only earth sheltered downstairs, that we have only used the air con about 160;five or ten hours per summer. And my place is only earth sheltered downstairs. If buried walls are no more than eight feet high, some building departments allow the use of 160;"stock plans", available over the 160;counter; these save a bunch over using an engineer. 160; 20)Evaluate the overhangs on your south wall, for shading in summer and solar 160;gain in winter. Be aware that this is not a perfect situation, as the sun angle is the same on March 21 as on September 21. 160; 21)Try to place water heater as close as possible to the points of use. 160;Consider a small, separate water heater for very distant points of use. Better yet, install an electric "instant water heater", aka "tankless water heater" 160;	12/16/2010	Rejected	Good comment, but form a new construction perspective.

ID	Name	State	Section	Comment	Date	Status	Response
737	malcolm Drake	OR		<p>&#160;22)Buy, borrow, or check out from the library, THE PASSIVE SOLAR ENERGY BOOK, &#160;by Edward Mazria. Read it; it's got lots of other good suggestions, energy &#160;charts, solar charts, etc. Published by &#160;Rodale Press, interestingly &#160;enough. &#160;</p> <p>&#160;23) If you have a heat pump, it's important to have a programmable thermostat. &#160;This thermostat can make your heat pump turn on in a fashion where the &#160;resistance heating element doesn't come on; this element uses about twice as &#160;much energy as the heat pump to heat the house the same amount. (this is less important on a geothermal heat pump. Mine, for instance, has no resistance heating element. "Normal" heat pumps-the ones located outside the house, always need this heat strip for cold weather, as the outdoor unit needs to be defrosted frequently, with lots of energy wasted during the defrost cycle)</p> <p>24) If you use any type of central heating system, especially a heat pump, consult your HVAC person about oversized main heating and cooling ducts. This will allow for "zone heating and cooling", so you can heat/cool only certain parts of the house regularly, without overstressing the air handler, or heat the entire house when desired. "Regular" heat ducts, especially those used for heat pumps, require that the whole house be heated or cooled whenever any part of it is.</p> <p>For temperate climates (cold winters/not summers).</p>	12/16/2010	Rejected	Good comment, but form a new construction perspective.
738	malcolm Drake	OR		<p>1)Design your house as much as possible with all the rooms you spend a lot of &#160;time in along the south wall, and spaces like stairways, laundry garage, etc. along the north side.</p> <p>2)Put nearly all your windows on the south wall</p> <p>&#160;3)Design the house so that the east-west axis is about half again as long (or more) as &#160;the north south axis. This will maximize solar gain in winter, while minimizing it in summer.</p> <p>&#160;</p> <p>4)Leave as many trees as possible around east, west and north sides of house. &#160;These (especially the east and west) will provide &#160;good shading in the summer, &#160;but not block the solar gain in the winter, because of where the sun rises and &#160;sets in different seasons. They will also provide protection from the wind in &#160;the winter. If you live in an area subject to wildfires, be sure to leave adequate spacing between the trees and the house)</p> <p>&#160;5)If there's not adequate shading on east and west, build extra large &#160;overhangs on east and west roofs for summer shade. Balconies can also be &#160;useful for shading in this way.</p> <p>&#160;6)Make sure you have enough windows (I also recommend a whole house fan) to &#160;cool off the house at night. Mornings, close windows and drapes after house cools down overnight, &#160;to keep house cool in summer. This works best in dry summer &#160;climates, where there is usually a large diurnal temperature fluctuation.</p> <p>&#160;</p>	12/16/2010	Rejected	Good comment, but form a new construction perspective.
739	malcolm Drake	OR		<p>25)Take advantage of the Energy Trust of Oregon's amazing solar electricity rebate program (My 3000 watt system has performed flawlessly for over three years, and has produced about 12,000 kilowatts of power-more than the experts estimated). And currently, for the next year at least (2007), there are excellent tax credits available from both the feds &#160;and the state of Oregon, in addition to the ETO grant funds. Similar programs are available in other states, I'm told.</p> <p>I bought a 3000 watt system recently, and with all the tax credits, etc, the cost comes out at 2000, turnkey; all you have to do is write a check. All the permits, installation, site evaluation, and other labor, are included in this price.</p> <p>26) "Green Roof" This could be &#160;a real energy save in hot climates, but be sure your roof can carry the extra weight, especially if you are in earthquake country. If possible, capture any runoff water for reuse on your vegetable garden or (shudder) lawn.</p>	12/16/2010	Rejected	Comment is not relevant to the scope of the SWS or is not integratable as written
740	malcolm Drake	OR		<p>27)Last, but not least: install a clothesline, fer crying out loud! An average clothes dryer consumes 1000 kilowatt hours of electricity per year. This translates to about eighty dollars at today's (southern Oregon) rate of 8 cents per kwh. Gas dryers use a similar amount of power, and are also contributors to our oil dependency.</p> <p>It's very easy to put up, and to use, a clothesline. In my experience, even "environmentalists" often don't use this solar/wind powered tool. One can-as I do-also use a clothes drying rack inside the house in wet weather.</p>	12/16/2010	Rejected	Comment is not relevant to the scope of the SWS or is not integratable as written
741	Maureen Pedrotti	NY		<p>Comments on DOE Workforce Guidelines</p> <p>The Community Development Corporation of Long Island is a not-for-profit organization that has been providing needed services to local communities since 1969. Our mission is to support the housing and economic aspirations of individuals, families, and small businesses through exemplary stewardship of resources entrusted to us.</p> <p>CDC of Long Island has been the United States Department of Energy (DOE) Weatherization Assistance Program (WAP) local subgrantee in Nassau and Suffolk Counties on behalf of New York State for over two decades. In this time, we have provided energy audits and weatherization services to over 15,000 low income households. This work has been conducted by our own highly-trained staff and through subcontractors that we hire through a competitive bid process. Since 2009, our operations have expanded significantly through American Recovery and Reinvestment Act (ARRA) funding.</p> <p>Recently, CDC of Long Island has sought to expand our work beyond WAP due to the need for energy efficiency measures beyond the very low income communities. Through our new Green Initiatives department, we are leading a Consortium on Long Island who will be marketing the New York State Green Jobs-Green New York program through funds from the New York State Energy Research and Development Authority, under the federal DOE Better Buildings program. This program will encourage consumers to undertake energy audits and retrofit work in their homes while subsequently encouraging the training of a larger green workforce.</p> <p>CDC of Long Island believes that strong, consistent workforce training standards are key to producing high quality retrofits, which are essential to improving consumer comfort, reducing energy costs, and reducing our carbon footprint. We have found over time that training must be continual, not a one-time occurrence, and we encourage DOE to provide as many training opportunities as possible nationwide. While we strongly advocate consistent and up-to-the-minute training in technical specifications, there must also be a robust training component for consumer education, because without ongoing behavioral changes by the consumer, the full impact of the program cannot be realized. Given the bleak economic picture in the nation, we are proud to be part of an initiative which will provide job opportunities to highly motivated workers who may have been displaced from other industries.</p> <p>We appreciate the opportunity to provide comments on this effort. As this guide is implemented, we ask for DOE's continued involvement of local WAP providers in ensuring standards are in line with our training and capacity, and are appropriate to meet the needs in our communities.</p>	12/28/2010	Rejected	Comment is not relevant to the scope of the SWS or is not integratable as written

ID	Name	State	Section	Comment	Date	Status	Response
742		AL			12/31/2010	Rejected	Comment is not relevant to the scope of the SWS or is not integratable as written
743		AL			12/31/2010	Rejected	Comment is not relevant to the scope of the SWS or is not integratable as written
744		AL			12/31/2010	Rejected	Comment is not relevant to the scope of the SWS or is not integratable as written
745		AL			12/31/2010	Rejected	Comment is not relevant to the scope of the SWS or is not integratable as written
746	John Shortt	DC		<p>Honeywell supports the development of the Home Performance Assessment Guidelines as a measure to ensure that homes are appropriately assessed for cost-effective energy efficiency improvement opportunities. We suggest that DOE strengthen the efficacy of the Home Performance Assessments outlined in Section 1 of the Guidelines, and in Part II's Job Task Analysis Outlines by requiring that qualified professionals certified by an independent third party perform all such assessments and oversee subsequent retrofit installment work. This requirement would provide significant advantages to the retrofit customer and support mandates and policies of DOE and the Recovery Act, and achieve DOE's goal to identify the minimum knowledge, skills, and abilities ("KSAs") that a skilled energy efficiency professional should possess to perform high quality energy efficiency retrofit work. 1</p> <p>First, requiring the Home Performance Assessment to be performed by a certified professional advances the goal of the October 2009 Recovery Through Retrofit Report ("Retrofit Report") to establish a uniform set of national standards to qualify energy efficiency and retrofit workers and industry training providers. 2 As discussed in the Retrofit Report, the</p> <p>1 Department of Energy, Workforce Guidelines for Home Energy Upgrades, Notice of Availability; request for comments (75 Fed. Reg. 216) November 9, 2010 at 68781-68782. 2 Council on Environmental Quality, Recovery Through Retrofit, October 2009 at 3 [hereinafter "Retrofit Report"].</p> <p>application of standards will establish consumer confidence that retrofit work will be completed correctly and produce the expected energy savings and benefits.</p> <p>Certified professionals should have specialized energy efficiency training that will ensure the Home Performance Assessment and retrofit work is performed to the highest level of quality by trained professionals with demonstrated and sustained standards of technical proficiency. As such they should stress a "whole house" approach that optimizes cost effective energy savings and require that the home assessment contractors demonstrate specific knowledge and skills with respect to: Building Science, the Building Envelope, Interaction with Other Building Systems (i.e. HVAC equipment), Measurement and Verification of Building Performance and Professional Ethics.</p> <p>Any independent third party should require exacting certification standards that assure the home retrofit workforce will achieve quality minimum knowledge, skills, and abilities consistent with DOE's goal. This will increase consumer, financier, and taxpayer confidence that home efficiency work will be properly identified and performed pursuant to Guidelines, completed correctly, and produce the expected energy savings and benefits.</p>	1/7/2011	Rejected	Comment is not relevant to the scope of the SWS or is not integratable as written
747	Sanjeev Rastogi	NJ		<p>Honeywell supports the Home Performance Assessment's inclusion of building shell and air leakage assessments. Evaluating and recommending improvements related to a home's building shell and air leakage aspects is consistent with a whole house approach to maximize available energy savings and helps to prioritize potential measures according to cost effectiveness. Building shell and air leakage are significant sources of a home's heat and efficiency losses and should be addressed as a priority. According to the Air Barrier Association of America, a typical home has more than half a mile of gaps and cracks, allowing for as much as 40 percent of the money spent on heating and cooling bills to literally float out of a home.</p> <p>Requiring building shell and air leakage aspects to be examined with respect to efficiency will maximize energy savings to customers receiving retrofits, and to taxpayers funding retrofit activities. DOE estimates that 20 to 40 percent of the money an average American family spends on heating and cooling their home each year is wasted through uncontrolled air leakage, insufficient insulation, and failing ductwork. Moreover, heating and cooling account for 50 to 70 percent of energy used in the American home, 4 and weatherization makes an instant impact to</p> <p>3Retrofit Report at 3. 4 Department of Energy, Insulation Fact Sheet, available at http://www.ornl.gov/sci/roofs+walls/insulation/ins_01.html.</p> <p>lower utility bills. For the average home receiving weatherization assistance, the DOE estimates an energy expenditure savings of \$437 per year, depending on fuel prices .5 Because insulation and air sealing are the fastest and most cost-effective ways to use a whole house approach to reducing energy waste and making the most of energy saving investments, 6 we strongly support the evaluation of building shell and air leakage.</p>	1/7/2011	Rejected	Comment is not relevant to the scope of the SWS or is not integratable as written
748	Sanjeev Rastogi	NJ			1/7/2011	Rejected	Comment is not relevant to the scope of the SWS or is not integratable as written
749	Charlotte Brody	VA			1/4/2011	Rejected	No comment present
750	Charlotte Brody	VA			1/4/2011	Rejected	No comment present
751	Charlotte Brody	VA			1/4/2011	Rejected	No comment present
752	Donald Prather	VA	5.2.1 Page 184	<p>Specification should read: ANSI/ACCA Manual J Residential Load Calculation, 8th ed. and ANSI/ACCA 5 -- 2010 QJ HVAC Quality Installation Specification requirements or ASHRAE equivalents should be used for all load calculations.</p> <p>Reason: Manual J&#174; Residential Load Calculation, 8th ed., 2006 it is the residential load design manual that is cited in most codes and the QJ Standard specifies acceptable design parameters.</p>	12/23/2010	Accepted	Add the reviewer's comment to existing SWS spec rather than using it to replace the SWS spec.
753	Donald Prather	VA	5.2.2 Page 185	<p>Specification should read: ANSI/ACCA Manual J Residential Load Calculation, 8th ed. and ANSI/ACCA 5 -- 2010 QJ HVAC Quality Installation Specification, and ANSI/ACCA Manual S Residential Equipment Selection, requirements or ASHRAE equivalents should be used for all load calculations.</p> <p>Reason: Manual J Residential Load Calculation, 8th ed., 2006 it is the residential load design manual that is cited in most codes and the QJ Standard specifies acceptable design parameters and Manual S covers equipment selection.</p>	12/23/2010	Accepted	Manuals J and S are standard documents for residential equipment sizing and selection. The SWS as-written specifications are vague and do not give adequate guidance.

ID	Name	State	Section	Comment	Date	Status	Response
754	Donald Prather	VA	5.2.3 Page 185	Specification should read: ANSI/ACCA Manual J Residential Load Calculation, 8th ed. and ANSI/ACCA 5 -- 2010 QI HVAC Quality Installation Specification, and ANSI/ACCA Manual S Residential Equipment Selection, requirements or ASHRAE equivalents should be used for all load calculations. Reason: Manual J Residential Load Calculation, 8th ed., 2006 it is the residential load design manual that is cited in most codes and the QI Standard specifies acceptable design parameters and Manual S covers equipment selection.	12/23/2010	Accepted	Manuals J and S are standard documents for residential equipment sizing and selection. The SWS as-written specifications are vague and do not give adequate guidance.
755	Donald Prather	VA	5.2.4 Page 186	Specification should read: ANSI/ACCA Manual J Residential Load Calculation, 8th ed. and ANSI/ACCA 5 -- 2010 QI HVAC Quality Installation Specification, and ANSI/ACCA Manual S Residential Equipment Selection, requirements or ASHRAE equivalents should be used for all load calculations. Reason: Manual J Residential Load Calculation, 8th ed., 2006 it is the residential load design manual that is cited in most codes and the QI Standard specifies acceptable design parameters and Manual S covers equipment selection.	12/23/2010	Accepted	Add the reviewer's comment to existing SWS spec rather than using it to replace the SWS spec.
756	Donald Prather	VA	5.8.13 Page 201	Specifications should say: Airflow will be established using ANSI/ACCA 5 -- 2010 QI HVAC Quality Installation Specification and ASHRAE standards	12/23/2010	Accepted	Correct date of ACCA document in SWS spec (cite it correctly "ANSI/ACCA 5 -- 2010 QI HVAC Quality Installation Specification")
757	Ken Cluskey	IL	0	Why are these guidelines voluntary? They should be incorporated into training guidelines and followed. Any contractor or auditor violating the guidelines repeatedly should be fired. This industry is ripe for fraud as you probably already know. I have worked with folks in the energy efficiency retrofit industry, investment banking, mortgage banking, ect. The FHA is guaranteeing 90% of the loans. It better make sure they are correctly underwritten and the cashflows that auditors say they will get from home improvements materialize. Or, the tax payer will be on the hook again. This is a very similar problem that happened in the real estate crash. Appraisers were pressured to over value homes. Auditors will be pressured to overvalue cashflow savings. Contractors will take short-cuts which will prevent cashflow savings. There needs to be quality control and accountability. Thank you.			Comments related to format & usability will be addressed as the format is finalized
758	Bob Sisson	MD	0	For the average contractor this is Just to Much to Digest. This might be fine for the Large Franchise company with a legal/RFP department, but for the average contractor of a few people working in a few counties, they will not even TRY to comprehend this document. Is it available in SPANISH? Those will be most of the WORKERS... and you are asking them to read and comprehend something larger than they have ever read... There needs to be a MUCH smaller document that is the high points only that the AVERAGE 4-15 person firm can review and comprehend. Even as a Professional, who is used to reading specifications, this is a larger document than when I was bidding out multi-national telecommunications systems.	11/19/2010		Comments related to format & usability will be addressed as the format is finalized
759	Andrea Vassallo	CT	0	Could these guidelines become national standard when people go to purchase residential homes? Certain states require energy audits as part of their inspection package for residential, however, most states like mine CT and most mortgage companies do not require the same amount of due diligence that applies within the sector of commercial or industrial like a Phase 1 Site Assessment before a bank assumes risk of a property. As a BPI certified energy auditor in my efforts to purchase a home many I have noticed dozens of homes could benefit from an energy audit explicitly in regards to mold. I can only attest to the state of CT however our state subsidized energy auditing program, which I am currently an employee of an authorized vendor, does not participate in a majority of tasks as specified under full BPI Analyst and Envelope protocol. Full CAZ testing isn't even an option in my state because of union issues between the HVAC companies and the energy auditing/weatherization firms. How could an auditor possibly perform a full comprehensive audit and give clients a full evaluation with out stepping on the toes of another industry who's diagnostic IS NOT subsidized under out state program? Most often my clients can not always take advantage of CT state rebate programs because of a lack of money let alone pay an additional diagnostic cost in the state of CT, especially if those clients are renters but not low income. Thank you for your efforts. Respectfully Submitted Andrea	11/30/2010		Comments related to format & usability will be addressed as the format is finalized
760	greg pedrick	NY	0	I feel that inserting photographs of the actual completed work done correctly into the document at the various sub-topic sections, would go a long way to providing examples as the guidelines. I have photos to include for the comments I made on sections 6 and sections 7, to illustrate this concept, but do not see how to attach them within these comment sections.	12/2/2010		Comments related to format & usability will be addressed as the format is finalized
761	Chris Stratton	CA	0	Please contact me (Chris Stratton) at jstratton@lbl.gov. General comments: 1. This document needs to be shorter and more concise if people are going to read it. Look for ways to shorten it by eliminating redundancies. Also, its clarity could be improved significantly by including images and diagrams to supplement or replace the explanations of specifications and directives. 2. Could include a list of links to each of the sections in the header or footer of each page. This would allow the reader to easily jump from one section to another without having to scroll all the way back to table of contents to the section link or scroll through the document to the section itself. The current section being viewed could be highlighted and the others could be grayed out. 3. Consider eliminating the second table of contents listing before each topic begins. For example, as the beginning of Section 1: Combustion Appliances, page 30 lists the contents of the Health and Safety topic. As the beginning of the Health and Safety topic, page 31 again lists the contents of the Health and Safety topic. In addition, these contents are already listed in the detailed table of contents beginning on page 10. 4. Simplify the way the categories and specifications are structured. Currently the structure is: a. Section -- Topic -- Subtopic -- Detail -- Specification, where only Section, Detail, and Specification have a numerical distinction (i.e. Specification 1 in Detail 2 in Section	12/21/2010		Comments related to format & usability will be addressed as the format is finalized
762	Chris Stratton	CA	0	n 3 would be indicated as "3.2.1") b. Several of the Topics just repeat the name of the Section. For instance, there's a "Combustion Appliances" topic within the "Combustion Appliances" section, a "Baseload" topic within the "Baseload" section, etc. 5. Within the Standard Work Specifications, separate Home Performance Assessment from the other 7 "Home Component" sections, indicating that it encompasses (frames?) the other sections. It seems that the home performance assessment section is categorically different than the other 7. 6. Refer to existing standards whenever possible, and include hyperlinks (either online or in the standards appendix) to the standards specified within the table. Be careful not to re-create/replace well-vetted existing retrofit standards within this document. I understand that these are intended to be "work specifications" as opposed to existing "technical standards," but I would say there is considerable overlap in many cases. Please feel free to contact me at jstratton@lbl.gov for clarification on my comments or for assistance in implementing them. I could most easily demonstrate my formatting suggestions if I had access to an editable Microsoft Word version of this document. For an example of the kind of clarity and information density I envision, please look at the EPA safety and health document that accompanies this one (http://www.epa.gov/iaq/pdfs/epa_retrofit_protocols_draft_110910.pdf). In fact, this EPA publication obviates	12/21/2010		Comments related to format & usability will be addressed as the format is finalized
763	Chris Stratton	CA	0	The table of contents should read "Section 1", "Section 2", etc.	12/21/2010		Comments related to format & usability will be addressed as the format is finalized

ID	Name	State	Section	Comment	Date	Status	Response
764	Chris Stratton	CA	0	In the introduction, after #6 of the "the workforce guidelines will..." insert new, bold section: How to Use this Document: This is VERY important. If it's not REALLY clear how this document is structured and how it's used, people (especially contractors) will not use it. It doesn't matter how technically sound the standards are. If they're not clearly presented, they will not be used.	12/21/2010		Comments related to format & usability will be addressed as the format is finalized
765	Chris Stratton	CA	0	Regarding the acknowledgements section of the introduction: Make the font smaller or put this on another page or otherwise de-emphasize the acknowledgements section. It may be important to the authors, etc. But it's unimportant to the vast majority of the document's users.	12/21/2010		Comments related to format & usability will be addressed as the format is finalized
766	Chris Stratton	CA	0	Regarding the relationship between the Workforce Guidelines and the EPA's Healthy Indoor Environment Protocols: Right now there's a lot of redundancy between the health and safety sections of this document and the content of the EPA document.	12/21/2010		Comments related to format & usability will be addressed as the format is finalized
767	Chris Stratton	CA	0	The entire "Detailed Table of Contents" beginning on page 10 should be deleted. It's better to just give a detailed table of contents at the beginning of each section. Also, delete the tables of contents at the beginning of each "detail"; they are redundant. Use hyperlinks MUCH more. Assume this document is going to be viewed digitally, often with an internet connection.	12/21/2010		Comments related to format & usability will be addressed as the format is finalized
768	Chris Stratton	CA	0	In the Tables of Contents for each section, the details should be listed 1.1, 1.2, etc. And each listing should be hyperlinked.	12/21/2010		Comments related to format & usability will be addressed as the format is finalized
769	Chris Stratton	CA	0	All appendices should be at the end of the document, NOT at the end of each section.	12/21/2010		Comments related to format & usability will be addressed as the format is finalized
770	Chris Stratton	CA	0	Why are there so many levels of hierarchy? Section Topic Subtopic Detail Specification It seems like Section, Detail, Specification would be sufficient. Moreover, several of the sections have	12/21/2010		Comments related to format & usability will be addressed as the format is finalized
771	Chris Stratton	CA	0	All of the tables in the document should be changed to landscape layout. This would make better use of space and reduce the instances of content being cut off due to page breaks.	12/21/2010		Comments related to format & usability will be addressed as the format is finalized
772	Myron Katz	LA	0	CONTENTS AT A GLANCE PART I : 1 - 564 STANDARD WORK SPECIFICATIONS FOR ENERGY CONSERVATION RESIDENTIAL RETROFITS Energy conservation is the goal, not energy efficiency. We want less energy used. We can do this by other means besides using energy more efficiently. Energy conservation can ALSO be accomplished by control or via timing (e.g., adobe walls that cool in the night-time and heat in the day time—namely 12 hours in advance of need, AC's that make ice in the night-time, or electric batteries that store energy for later dispatch--all conserve energy.) The goal is energy conservation NOT energy efficiency. When we provide more light switches per room or double-hung windows we improve the opportunity for energy conservation in a way not measured by energy efficiency. We MUST not ignore 2 out of 3 of the means toward energy conservation, merely because we cannot predict its use or effect.	1/6/2011		Comments related to format & usability will be addressed as the format is finalized
773	Albert Donnay	MD	0	I entered hundreds of comments today (Jan 7) via this app, hitting "save & add another" after each one. But the app then crashed before I could hit the Save & Finish button, and I was unable to recover this page (I had to re-register just to get to here). Please let me know if you got any of my comments and if not, if I can resubmit them. I really don't want to do this unless I have to however as it took me over 5 hours to get this far. Thanks, Albert Donnay, adonnay@ju.edu, 410-889-6666	1/7/2011		Comments related to format & usability will be addressed as the format is finalized
774	Alan Floyd	TX	1	This is great news for our industry. Finally some standards that make sense and provide a barrier of safety from the companies claiming to do energy audits trying to sell the homeowner something they do not need. The only negative is do we really need a 572 pages of it!!! reality is we are in this to make money and these guidelines are somewhat over kill as to reality of field conditions and circumstances. I believe if you adhere to BPI standards with focus on better FIELD education and practice for the new people coming into this industry will be one key to the programs success. Make entry into this industry to technical you will limit and slow the entry of construction type workforce. They are not a technical group and hate tons of regulation and miles of paperwork and standards. This come from my 23 years of experience in the building, development and inspection business. Regualate it! you bet.... just not to death..			Comments related to format & usability will be addressed as the format is finalized
775	Chris Stratton	CA	1	The "Home Performance Assessment" section is categorically different than the other 7 sections.	12/21/2010		Comments related to format & usability will be addressed as the format is finalized
776	Chris Stratton	CA	1	The appendix for this section needs to be re-edited for clarity and concision. There is a lot of repetition. It's not clear how the information in this appendix is intended to be used. Perhaps this information could be distilled into directives and could constitute the "specifications" in the Home Assessment section, instead of the current specifications.	12/21/2010		Comments related to format & usability will be addressed as the format is finalized
777	Chris Stratton	CA	3	pgs 54 and 55 are content free	12/21/2010		Comments related to format & usability will be addressed as the format is finalized
778	Chris Stratton	CA	3	Re: Appendix C Move appendices to end of document. This appendix is much more technical and specific than almost every other section of this document. There are significant variations in the level of detail provided in the individual sections. Appendix C (very specific) and the existing specifications in the Home Performance Assessment section (very general) represent two ends of that spectrum.	12/21/2010		Comments related to format & usability will be addressed as the format is finalized
779	Chris Stratton	CA	3.1	"Row" as the title of a column doesn't mean anything. The title of the column should be something more descriptive than "Row." Better to leave it blank.	12/21/2010		Comments related to format & usability will be addressed as the format is finalized

ID	Name	State	Section	Comment	Date	Status	Response
780	Chris Stratton	CA	3.1	pg 62 is blank	12/21/2010		Comments related to format & usability will be addressed as the format is finalized
781	Chris Stratton	CA	3.12	Regional considerations are applied and included inconsistently in different sections.	12/21/2010		Comments related to format & usability will be addressed as the format is finalized
782	Chris Stratton	CA	4.2	Include graphic of US regions?	12/21/2010		Comments related to format & usability will be addressed as the format is finalized
783	Sean Lintow Sr	AL	6	As mentioned above, you should adopt the 2009 IECC as your primary standard and adapt it to meet your goals. All you would need to do is put a reference to the applicable section or your modifications and move on. The nice part about the 2009 IECC is that your agency has already made it available for anyone to download free so that does not put a burden on anyone. The other great thing with adopting that code, is now you will have a group of individuals in each state to help them adopt it, when they fulfill there part of the stimulus bargain. Another idea along the same lines is to adopt your own ENERGY STAR program for older homes and tie it into the retrofit market. As a RESNET rater, we can easily rate a house to get an appropriate number and verify work that is done. Now you have not only a specialized trained rater verifying the work but a trusted number and name that is still lacking in your current program. I do love one saying from Microsoft & that is how they eat their own dog food (in this case they beta test the software they create in house first). If you truly want this field to take off, you need to start practicing what you preach & even share the results. I really cannot believe when I walk into one of your buildings, another agency, and simply look up or out at the desks and see older fluorescents & incandescent light bulbs among other issues tends to send the wrong message.	12/10/2010		Comments related to format & usability will be addressed as the format is finalized
784	Chris Stratton	CA	7.18	If there are no regional considerations for this section, then why take the space to list them all?	12/21/2010		Comments related to format & usability will be addressed as the format is finalized
785	Chris Stratton	CA	9	Why do you need a row # or a "Row" column in a glossary?	12/21/2010		Comments related to format & usability will be addressed as the format is finalized
786	Chris Stratton	CA	10	Include a brief narrative explanation of how this table is supposed to be used. Keep the column title bar at the top of each page. It's distracting that it appears to move down the page as you page down.	12/21/2010		Comments related to format & usability will be addressed as the format is finalized
787	Chris Stratton	CA	10	Can use this same landscape layout formatting template for all other tables in the document.	12/21/2010		Comments related to format & usability will be addressed as the format is finalized
788	Chris Stratton	CA	10	include column headers on each page	12/21/2010		Comments related to format & usability will be addressed as the format is finalized
789	Chris Stratton	CA	11	Provide table of contents for this appendix, with hyperlinks to each standard.	12/21/2010		Comments related to format & usability will be addressed as the format is finalized
790	Simone Lindenbaum	AL	1.1.1	Include Skill in: 1. Written and Oral Communication	1/5/2011		Comments related to format & usability will be addressed as the format is finalized
791	Shelley Kawamura	CO	1.1.1	Is Home Performance Assessment Input Table (couldn't locate) the same as Appendix A - Home Assessment Guidelines? Add Cool Roof Coating as a Skill Set in areas with high cooling load.	1/7/2011		Comments related to format & usability will be addressed as the format is finalized
792	Simone Lindenbaum	AL	1.2.15	Include Ability to: 1. Identify coating formulation components 2. Define quality in cool coatings 3. Determine adhesion 4. Define elastomeric properties 5. Identify types of cool roof coatings 6. Asphaltic 7. Non-Asphaltic 8. Identify factors affecting roof deterioration 9. Define and identify performance requirements 10. Identify what cool roof coatings can or cannot restore 11. Measure the roof life cycle 12. Articulate life cycle cost benefits of cool roof coatings 13. Calculate energy savings by employing cool roof coatings 14. Estimate internal temperature reduction in unconditioned spaces with cool roof coatings Include Knowledge of: 1. Product data sheet o ASTM o Performance requirements 2. Cool roof coating application requirements o Surface preparation o Cleanliness o Film thickness o Quality on cool roof coatings (performance history) 3. Cool roof problems o Identify the cause o Identify remediation techniques	1/5/2011		Comments related to format & usability will be addressed as the format is finalized
793	Simone Lindenbaum	AL	1.2.2	Include Knowledge of: 1. Methods and Materials of Construction 2. Electrical and Mechanical Systems in Buildings	1/5/2011		Comments related to format & usability will be addressed as the format is finalized
794	Simone Lindenbaum	AL	1.2.6	1.2.6 Include Skill in: 1. Basic Math and Geometry (Geometry is beyond a basic math skill)	1/5/2011		Comments related to format & usability will be addressed as the format is finalized

ID	Name	State	Section	Comment	Date	Status	Response
795	Simone Lindenbaum	AL	1.4.3	Include Evaluation of: 1. HVAC System Include Knowledge of: 1. ACCA manuals and NATE Competencies	1/6/2011		Comments related to format & usability will be addressed as the format is finalized
796	Simone Lindenbaum	AL	2.2.1	Include skill in: 1. Conduct oneself in an ethical manner with an understanding of cultural diversity	1/6/2011		Comments related to format & usability will be addressed as the format is finalized
797	Simone Lindenbaum	AL	3.1.1	Include Knowledge of: 1. 47-4099.03 Weatherization Installers and Technicians job description and tasks under O*NET	1/6/2011		Comments related to format & usability will be addressed as the format is finalized
798	Simone Lindenbaum	AL	3.2.2	Include Knowledge of: 1. Materials and how they are sold and packaged	1/6/2011		Comments related to format & usability will be addressed as the format is finalized
799	Simone Lindenbaum	AL	4.1.1	Include Knowledge of: 1. Weatherization Retrofit Certification as Crew Chief or Auditor 2. First Aid and Safety Standards	1/6/2011		Comments related to format & usability will be addressed as the format is finalized
800	Simone Lindenbaum	AL	4.2.2	Include Knowledge of: 1. Various Diagnostic and Combustion Tests Include Skill In: 1. Basic Math- Geometry and Elementary Algebra 2. Basic tool use- Hand and Power Tools	1/6/2011		Comments related to format & usability will be addressed as the format is finalized
801	Simone Lindenbaum	AL	4.3.1	Include Ability to: 2. Perform combustion test (heating systems, domestic water heater, ovens, stoves, fireplaces)	1/6/2011		Comments related to format & usability will be addressed as the format is finalized
802	Simone Lindenbaum	AL	4.3.2	Include Ability to: 1. Conduct "Conduction Combustion Appliance CAZ Test"	1/6/2011		Comments related to format & usability will be addressed as the format is finalized
803	Simone Lindenbaum	AL	4.3.3	Include Knowledge of: 1. Field Guides and Technical Standards	1/6/2011		Comments related to format & usability will be addressed as the format is finalized
804	Donald Prather	VA	5.13 Page 211	Subtopic: Commissioning Equipment should be change to Equipment check. Reason: Only Licensed Engineers and senior HVAC mechanics have the skill set required to properly commission an installed HVAC system.	12/23/2010		Comments related to format & usability will be addressed as the format is finalized
805	Donald Prather	VA	5.21 Page 225	Subtopic: Commissioning Equipment should be change to Equipment check. Reason: Only Licensed Engineers and senior HVAC mechanics have the skill set required to properly commission an installed HVAC system.	12/23/2010		Comments related to format & usability will be addressed as the format is finalized
806	Mark Krebs	MO	5.39.8	Again, cited references and/or footnoted references should be provided via web link or attached so that public comments can be made as to the suitability of such references.	1/5/2011		Comments related to format & usability will be addressed as the format is finalized
807	Mark Krebs	MO	5.40.1	This is the same redundant concern: Referenced documents are not being provided for review.	1/5/2011		Comments related to format & usability will be addressed as the format is finalized
808	Simone Lindenbaum	AL	6.1.10	Include: 1. Skid resistant materials should be applied to ladder treads when in use in wet areas to prevent accidental slips and falls on ladders.	1/6/2011		Comments related to format & usability will be addressed as the format is finalized
809	Simone Lindenbaum	AL	6.1.10	Ladder etiquette should include: 1. use ladder for intended use only. 2. do not use as temporary scaffolding. 3. Do not lean over the sides of the ladder to perform work of any kind. Instead, re-position the ladder to complete work.	1/6/2011		Comments related to format & usability will be addressed as the format is finalized
810	Simone Lindenbaum	AL	6.1.6	Include: 1. Use portable battery operated power tools (Drills, Reciprocating saws, circular saws and lighting systems) to avoid mobility restrictions and power tool injuries.	1/6/2011		Comments related to format & usability will be addressed as the format is finalized
811	Robert R. Preiss	AZ	6.5.1	Please provide an illustration showing a baffle properly installed.	12/10/2010		Comments related to format & usability will be addressed as the format is finalized
812	Simone Lindenbaum	AL	6.6.1	1. Adequate safety precautions should be observed around the dense packing machine hopper. 2. If possible, install a removable ventilated screen top to avoid loose construction debris (wood chips, nails, glass, metal chips ect.) from entering the blower system hose which could cause personal injury or property damage.	1/6/2011		Comments related to format & usability will be addressed as the format is finalized
813	Mark Krebs	MO	7.12.4	the same concerns regarding the lack of references and ANSI accreditation regarding the "BPI protocol" apply here. Additionally, the footnote number 489 appears out of sequence.	1/5/2011		Comments related to format & usability will be addressed as the format is finalized
814	Tolle Graham	MA	7.8.2	Oral communication is key-particularly with a multi-lingual workforce	1/7/2011		Comments related to format & usability will be addressed as the format is finalized
815	Keith Burkhardt	KY	8.11.1	Under Specifications Column, Add... Product will have the lowest total cost of ownership, which would include product, installation, operating cost, and maintenance. Product will be the most energy efficient product available for the appropriate fuel sources available. 70-90% of the total life cycle cost of a water heater is related to energy cost. Potential for solar, heat pump, wind, geothermal or other renewable systems will be assessed in selecting the hot water equipment. If replacing a standard electric water heater, make every effort to replace using an Energy Star rated electric water heater. Only electric heat pump water heaters are Energy Star qualified and use 55% less energy than standard electric water heaters. If replacing a standard natural gas or liquid propane storage tank water heater, make every effort to replace using an Energy Star rated tankless, condensing, or high efficiency storage natural gas/LP water heater. Under normal operating conditions, selected equipment should operate in its high efficiency mode.	1/7/2011		NOT HEALTH & SAFETY
816	Mark Krebs	MO	8.16.1	Please insert the same concerns provided in comments regarding 7.12.4	1/5/2011		Comments related to format & usability will be addressed as the format is finalized
817	Mark Krebs	MO	8.17.1	Again, the appropriateness of the BPI protocol is impossible to determine given it is not provided.	1/5/2011		Comments related to format & usability will be addressed as the format is finalized

ID	Name	State	Section	Comment	Date	Status	Response
818	Myron Katz	LA	all	Please send me a MS Word version of the document. I find this input approach altogether too hit and miss to do a thorough job. Myron.Katz@EnergyRater.com.	12/22/2010		Comments related to format & usability will be addressed as the format is finalized
819	Donald Prather	VA	Appendix B Page 51	Appendix B should be removed Reason: The Table is not part of an industry recognized standard and may not be in compliance with all Original Manufacturer's Directions and Gas code requirements. The following should be referenced if the intent is to have HVAC industry wide buy in; Original Equipment Manufacturers data, the National Fuel Gas Codes (NFPA) 54-2009 and the 2009 ICC International Fuel Gas Code (IFGC) and for guidance, ASTM E1998-02(2007).	12/23/2010		Comments related to format & usability will be addressed as the format is finalized
820	MICHAEL DAURIA	CT	contents	Add Section on a General awareness and understanding of Sustainability Add Section on Building Science * Building Science is the language of weatherization. Building Science is the collection of knowledge that focuses on the analysis and control of the physical phenomena affecting buildings. Building Science focuses on the detailed analysis of building materials and building enclosure systems to continuously improve of building techniques and designs. * Building Science is a continuously evolving field that expands as new technology and building materials are discovered. Add section on "Integrated Building Systems found in a typical Residential Structure"	12/31/2010		Comments related to format & usability will be addressed as the format is finalized
821	MICHAEL DAURIA	CT	Contents	CONSIDER ADDING NEW SECTIONS AND REVISED ORDER OF CONTENTS 1. INTRODUCTION -- SUSTAINABILITY- BUILDING SCIENCE 2. INTEGRATED BUILDING SYSTEMS 3. HOME PERFORMANCE ASSESSMENT 4. AIR SEALING 5. INSULATION 6. CRAWL SPACES AND BASEMENTS 7. VENTILATION 8. HEATING AND COOLING 9. COMBUSTION APPLIANCES 10. BASELOAD	12/31/2010		Comments related to format & usability will be addressed as the format is finalized
822	A John Girona III	VA	Overarching	There's a conspicuous absence of mention of the International Residential Code and previously adopted building codes in the USA. These need to be referenced. Referencing NFPA alone (on the building side) is tacit (perhaps overt) approval. Missing chapters	12/23/2010		Comments related to format & usability will be addressed as the format is finalized
823	Myron Katz	LA	page 1	OVERALL TABLE OF CONTENTS 2 SECTION 1: HOME PERFORMANCE ASSESSMENT 13 SECTION 1.5: CONTROL as a conservation strategy is missing. SECTION 1.7: TIMING as a conservation strategy is missing. SECTION 2: COMBUSTION APPLIANCES 32 SECTION 2.5: MOISTURE CONTROL is a missing section. SECTION 2.7: MOVING THE THERMAL BOUNDARY is a missing section. SECTION 3: VENTILATION 53 SECTION 4: AIR SEALING 114 SECTION 5: HEATING AND COOLING 172 SECTION 6: INSULATION 256 SECTION 7: CRAWL SPACES AND BASEMENTS 320 SECTION 8: BASELOAD ENERGY CONSUMPTION 371 GLOSSARY 430	1/6/2011		Comments related to format & usability will be addressed as the format is finalized
824	MICHAEL DAURIA	CT	table of contents	Recommend addition of Introduction to EE Home Energy Upgrades Introduction to Weatherization * Weatherization is the act of protecting a building from the elements such as wind, water, sunlight, cold, and heat. The goal of weatherization is to create buildings with high energy efficiency and low energy consumption requirements. * Weatherization measures most often focus on the building enclosure and the building's mechanical systems. The building enclosure is the physical barrier that separates the interior of the building from the exterior environment. Mechanical systems include heating and cooling systems (A/C) and are responsible for creating and moving conditioned air and controlling the movement of air through the enclosure between the exterior and interior environments. * Weatherization has many benefits including reducing the owner's or inhabitant's energy burden, helping protect the building against weather damage, increasing the building value, and reducing green-house gas emissions. An energy burden is the total dollar amount the building's owner pays for utilities such as gas, oil, electricity over a given time period. * Weatherization increases building value because future owners must recognize the value of weatherization cost savings as well as the increased value of new/better materials installed in the building during the weatherization process.	12/31/2010		Comments related to format & usability will be addressed as the format is finalized

ID	Name	State	Section	Comment	Date	Status	Response
825	malcolm Drake	OR		<p>&#160;7)Consider an attached greenhouse along the south side of house. This will help heat house when it's sunny, and will provide a tempered space along this side of house, helping to keep your heating bills low, even at night and during inclement weather. Waste heat from the house will help keep greenhouse warm, too. (I've only ever had to heat my greenhouse a total of two hours in ten years, because of this phenomenon) This is a fairly expensive proposition, however, and proper amount and placing of windows may be a better option for most people. However, if you're planning to use a greenhouse anyway, it might well be good to attach it to the house.</p> <p>&#160;8)Make sure you have plenty of ventilation in your attic, for keeping house cool in summer. Consider a solar powered attic ventilation fan.</p> <p>9)Install a heat exchanger gizmo to recover 50-85% of the energy used to heat the water you use in your shower (and possibly other areas)</p> <p>&#160;10)Build, or buy, a solar water heater--big energy saver, with a quick payoff.</p> <p>&#160;11)Install a wood heater, if you have a source of wood (stored solar energy). For emergency power, too, it can't be beat (make sure it does not require electricity to run, though, as some, e.g. pellet stoves, do.)</p>	12/16/2010		Comment is not relevant to the scope of the SWS or is not integratable as written
826	Clayton Mahan	WA		Training or approved implementations in these fields should allow for any commercial practice regardless of any traditional, local "apprenticeship" imposed requirements.			Comments related to format & usability will be addressed as the format is finalized
827	Srikanth Puttagunta	CT		This is just a general comment. There is lots of excellent information in this document but the format is not useful in my opinion. Don't know if this needs to be broken up into modules or just need to change the layout of the content. The 572 pages of bulleted information is just too cumbersome to be used by retrofit contractors, trainers, and program administrators. It has the information in it, but I don't see how people will get information out of it (especially for program administrators who don't have the building science background and even contractors might find this overload).	12/7/2010		Comments related to format & usability will be addressed as the format is finalized
951	Lane Burt			Health and Safety testing on page 38, we encourage the cap of 150 cfm of exhaust and supply fans to be eliminated, since all exhausting appliances should be turned on regardless of fan flow.		Accepted	2.2.3
952	Sanjeev Rastogi	NJ		As drafted, the proposed Guidelines exclude opportunities for cost-effective and proven energy efficient products, such as various types of spray polyurethane foam ("SPF") sealants. In its proposal, DOE appears to favor particular technologies that do not deliver the broad range of significant benefits that SPF sealants can provide in connection to building retrofits. Honeywell offers comments to assure that the Guidelines recognize all proven sealant technologies by recommending that DOE adopt technology neutral and/or performance-based standards that will deliver quantifiable energy savings. Specific recommended changes to Chapter 4 are referenced in the matrix at Appendix A.		Accepted	Being addressed by SPF industry
953	Sanjeev Rastogi	Business Director - Honeywell Structural Enclosures		<p>By utilizing SPF as a sealant, the home occupant experiences several benefits making SPF preferable to a latex product: SPF sealant is impermeable to air, which controls air flow and keeps humidity out of the home. As a result, SPF sealant offers a seamless, continuous air barrier that reduces opportunities for mold, bacterial, and mildew growth. Compared to non-foam sealants, the application of SPF sealant as an air barrier will remove air drafts. Moreover, SPF will effectively seal more of a building structure, providing the resident additional efficiency benefits, because the technology fills larger gaps and cracks than non-foam sealants. By effectively sealing the home, the application of SPF sealant eliminates the "draftiness" of a</p> <p>7 See Energy Star website, Air Seal and Insulate with ENERGY STAR at "Sealing Leaks", available at www.energystar.gov/index.cfm?c=home_sealing.hm_improvement_sealing (recognizing spray foam).</p> <p>home, increasing personal comfort. Further energy efficiency benefits may be achieved by the lessened need to adjust the thermostat due to more consistent home temperatures.</p> <p>SPF sealant applications also provide residents additional benefits by reducing the in-home infiltration of outside pollutants, and reducing moisture condensation within building walls and roofs. Water and moisture threaten building durability and can create ideal conditions for mold growth, which may impact occupant health.</p> <p>The industry has developed comprehensive guidelines for responsible stewardship with respect to the application of SPF within the home. When applied properly pursuant to the Material Safety Data Sheet and Product Data Sheet provided by material suppliers, SPF applicators minimize exposure to chemicals. The polyurethane foam industry actively researches and publishes data regarding the proper application of SPF material, and the avoidance of any health and safety hazards that may be associated with spraying and to protect worker health and safety.⁸</p> <p>Retrofit customers following contractors' guidance regarding how long to leave the home during the installation, job completion, and cleanup likewise will minimize health and safety concerns associated with SPF spraying.⁹</p>		Accepted	Being addressed by SPF industry
954	Lane Burt			in Appendix A 'Combustion Appliance Safety Section', it is unclear what is meant by "Identify combustion air source according to ASHRAE 62.2-2010"		Rejected	Assessment guidelines will be removed and reviewed in the future
955	Lane Burt			in the Building Envelope section of Appendix A-- you should specifically call out "effective R-value" in "Determine R-values of wall, ceiling and floor insulation".		Rejected	Assessment guidelines will be removed and reviewed in the future
956	Gary Hammerlund	MI	6.28	6.28 Suggest the Detail Name be change to "Exterior Wall Insulation" Desired Outcome: Install insulation to reduce heat transmission and air infiltration through walls			
957	Tolle Graham	MA	7.8	I didnt correctly read that this section is for occupants. I still emphasize the need for mult-lingual materials and ability to communicate well with the owners and even in thier own language. Recommendation to improve the current organization of Section 8.			
958	Keith Burkhardt	KY	8.11	The water heater consumes much more energy than the refrigerator, or any other major home appliance or electronics that comprise the plug load. In fact, next to the HVAC system, water heating is the largest energy-consuming appliance in the home. The water heater also offers the best opportunity for energy and cost savings. For this reason, GE urges the Department to position the discussion of water heating above the section on plug loads.			
959	Joe Hall	CO	3.12.5	and 6 put something in or take it out, the document is large already.			Consider how to best capture climate specific information. Possibly remove climate rows with no information.