

Task Group 4

Chapter 8 Water Efficiency

PC #	Log ID	Full Name Company Jurisdiction Entity Represented	Section Number Requested Action	Comment	Proposed Resolution	TG Action	Reason
PC 090	603	Dale Stroud Uponor, Inc. Uponor, Inc.	801.1 Indoor Hot Water Usage Revise as follows	The points awarded in this section are NOT proportional to the amount of water that is potentially wasted. For example, 3.a results in a theoretical waste of 4 cups and receives 6 points; 3.b could waste up to 17 cups (due to the 15 feet of supply to the manifold and the volume within the manifold body itself*) and receives 6 points; and 3.c could waste up to 6 cups and receives 8 points. *If the manifold is supplied with 1-inch PEX pipe that is 15 feet in length, approximately 7.3 cups is contained in the supply line. In addition, a typical manifold may contain 1.5 cups within its body. If a 3/4 inch line is used to supply the manifold (15 feet), that line contains about 4.4 cups.	Allot points as follows: 3.a = 8 points 3.b = 1 point if a 1" line supplies the manifold; 2 points of a 3/4" line supplies the manifold. If the manifold supply line is less than 8 feet, double the points. 3.c = 6 points-		OK
PC 091	776	Gary Klein Affiliated International Management, LLC Self	801.1 Indoor Hot Water Usage Delete and substitute as follows	The existing language is imprecise and the points awarded are internally inconsistent. In particular, the points should be awarded relative to the amount of water wasted while waiting for the hot water to arrive for each "cold start" event and for subsequent "hot start" events where the trunk or the branch to the fixture is already hot. (3) (a) allows 4 cups from the source to the use. (3) (b) allows 15 feet from the water heater to the manifold and an additional 8 cups from the manifold to the use. The 15 feet can be either 3/4 or 1 inch so the volume is between 5 and 8 cups, including the volume in the manifold. Total for this method is 13-16 cups. Both 3a and 3b are awarded the same number of points in the existing language. (3) (c) allows a maximum of 6 cups and is awarded 8 points. (3) (d) allows a maximum of 8 cups from the manifold to the uses. Points are currently TBD (4) (a) the language for the location of a tankless water heater does not take into account that the unit needs to be closer to the fixtures it serves than the water is wastes while ramping up to temperature. (4) (b) has language on demand pumps that more properly belongs in the Energy chapter under water heating, as the content is about energy, not water. This proposal awards points based on reducing the volume of water in the piping from the source of hot water to the uses. The system that reduces the waste the most gets the most points. Additional points have been proposed when the volume in the trunk line is reduced for demand circulation systems and when the water heater starts out with hot water or can ramp up to full temperature within 5 seconds. This recognizes that tankless water heaters run cold water through them as they ramp up to temperature. This water runs down the drain and is additional to the water in the hot water piping that must also run down the drain before the hot water can arrive a fixture. It is important to correlate this section with the section in Energy on insulating hot water pipes. I am willing to assist with this. [See the Additional Documents file for more information]	Please strike the entire section 801.1 Indoor hot water usage and Replace with the following (1) Minimum Requirements Piping must be sized in accordance with local plumbing code Maximum length to fixture furthest from water heater is 80 feet All hot waterlines must be insulated to at least R-4 More than one water heater is allowed More than one hot water distribution zone is allowed (2) The maximum volume from the water heater to the furthest fixture is 1 gallon Points awarded 1 (3) The maximum volume from the water heater to the furthest fixture is 0.5 gallons Points awarded 2 (4) The maximum volume from the water heater to the furthest fixture is 0.25 gallons Points awarded 4 (5) A demand controlled hot water priming pump is installed on the trunk line and the maximum volume from the trunk line to the furthest fixture is 0.125 gallons (0.19 gallons for island, peninsula and under-window kitchen sinks when foundation is slab-on-grade) Points awarded 8 When the volume in the trunk line to the branch for the furthest fixture is no more than 1 gallon Additional points 1 (6) Add to each hot water distribution system credit when a water heater with at least 0.5 gallon of storage is installed. The storage may be internal or external to a tankless water heater. Tankless water heaters that ramp up to at least 110F within 5 seconds do not need storage. Points awarded 1		

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PC 092	682	Robert Hill NAHB Research Center NAHB Research Center	801.4 Showerheads Revise as follows	The NGBS already recognizes that multi-unit buildings should not be limited in the ability to earn points because the building contains units of various sizes. Practice 601.1 allows the use of a weighted average for determining the conditioned area. It is reasonable to extend that approach to water saving fixtures. Awarding additional points for on a per shower compartment basis seems unusual since the vast majority of shower compartments have only one showerhead. It is more important to make all shower compartments in the building comply.	801.4 Showerheads. Showerheads are in accordance with the following: (1) The total maximum combined flow rate of all showerheads controlled by a single valve at any point in time in a shower compartment is 1.6 to less than 2.5 gpm. Maximum of two valves are installed per shower compartment. The flow rate is tested at 80 psi (552 kPa) in accordance with ASME A112.18.1. Showerheads are served by an automatic compensating valve that complies with ASSE 1016 or ASME A112.18.1 and specifically designed to provide thermal shock and scald protection at the flow rate of the showerhead. (Points awarded per shower compartment. In multi-unit buildings, a weighted average of bathrooms is used to calculate the number of points available for this practice (rounded down to a whole number).) (2) All showerheads shower compartments in the dwelling unit and common areas meet the requirements of 801.4(1). (Points awarded per shower compartment based on 801.4(2)(a) or 801.4(2)(b).)	Note: Comment is also submitted to TG-6 Multifamily	
PC 093	830	Mark Dyer DCI Homes Inc Self	801.4 Showerheads Revise as follows	This question came about because of the loss of a high scoring emerald opportunity because a mandatory item that should not apply to the house that I am building based on the fact that it is a well and septic home. I am not sure where this is in this section and am out of time to look this up. please forgive the non direct request for change on the subject. Somewhere in the sections shower heads and water closets one is forced to use low flow toilets and faucets mandatorily or they cannot receive an emerald level of certification. I think this should only be mandatory for houses that are located in and using city water and sewer. The intent is to reduce the amount of energy used in providing water and cleaning sewage. This is not the case in houses on property using soley well and septic. In the case of well and septic usage. The water comes from the ground and goes directly back into the ground. Maybe if there is no mandatory change for other reasons not listed than maybe there could be other points listed for well and septic usage because of the energy saved by not using city water and sewage. I however, would love to receive an emerald level on this home but cannot because a mandatory item that should not apply in this houses case.	See above		
PC 094	683	Robert Hill NAHB Research Center NAHB Research Center	801.5 Faucets Revise as follows	The NGBS already recognizes that multi-unit buildings should not be limited in the ability to earn points because the building contains units of various sizes. Practice 601.1 allows the use of a weighted average for determining the conditioned area. It is reasonable to extend that approach to water saving fixtures.	801.5.1 Water-efficient lavatory faucets with 1.5 gpm (5.68 L/m) or less maximum flow rate when tested at 60 psi (414 kPa) in accordance with ASME A112.18.1 are installed: (1) a bathroom (all faucets in a bathroom are in compliance) (Points awarded for each bathroom. In multi-unit buildings, a weighted average of bathrooms is used to calculate the number of points available for this practice (rounded down to a whole number).) (2) all lavatory faucets in the dwelling unit and common areas	Note: Comment is also submitted to TG-6 Multifamily	
PC 095	684	Robert Hill NAHB Research Center NAHB Research Center	801.6 Water closets and urinals Revise as follows	The NGBS already recognizes that multi-unit buildings should not be limited in the ability to earn points because the building contains units of various sizes. Practice 601.1 allows the use of a weighted average for determining the conditioned area. It is reasonable to extend that approach to water saving fixtures.	801.6 Water closets and urinals. Water closets and urinals are in accordance with the following: (1) Gold and emerald levels: All water closets and urinals are in accordance with Section 801.6. (2) A water closet is installed with an effective flush volume of 1.28 gallons (4.85 L) or less when tested in accordance with ASME A112.19.2 (all water closets) or when tested in accordance with ASME A112.19.14 (all dual flush water closets), and is in accordance with EPA WaterSense <i>Tank-Type High-Efficiency Toilet</i> , or (Points awarded per fixture. In multi-unit buildings, a weighted average of fixtures per unit is used to calculate the number of points available for this practice (rounded down to a whole number)) (3) All water closets are in accordance with Section 801.6(2). (a) Dual flush (or other) water closets are used that have a flush volume of 1.2 gallons or less and comply with 801.6(2); and all other water closets comply with 801.6(2). (Points awarded per toilet In multi-unit buildings, a weighted average of fixtures per unit is used to calculate the number of points available for this practice (rounded down to a whole number))	Note: Comment is also submitted to TG-6 Multifamily	
PC 096	720	Brent Mecham Irrigation Association Irrigation Association	801.7.1 High DU rotating spray heads Revise as follows	Use correct generic term for nozzle	801.7.1 Delete: High-Distribution Uniformity (DU) rotating spray heads are installed in lieu of spray heads for turf or landscaping. Add: Multi-stream, multi-trajectory rotating nozzles in lieu of spray nozzles for turf or landscaping.		
PC 097	716	Gladys Quinto Marrone BIA Hawaii BIA Hawaii	801.7.3 Landscape plan and implementation Revise as follows	A self-sustaining landscape helps to reduce water consumption. Hawaii has many indigenous plants that do not require a lot of water.	Points should be had for self-sustaining landscaping.		
PC 098	721	Brent Mecham Irrigation Association Irrigation Association	801.7.4 Drip irrigation zones Revise as follows	provide credit for using in shrub beds only and additional credit if used for turf areas	Delete: 801.7.2 Drip Irrigation installed for each landscape type. 8 points Add: 801.7.2 Drip Irrigation installed for: landscape beds 4 points subsurface drip for turfgrass areas 4 points		

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PC 099	685	Robert Hill NAHB Research Center NAHB Research Center	801.7.5 Irrigation System Smart Controller Revise as follows	Practices 801.7.4(3), 801.7.4(a), and 801.7.4(b) do not exist in the draft standard.	801.7. 5 The irrigation system(s) is controlled by a smart controller. (Points for 801.7.4(3) are not additive with points for 801.7.4(a) or 801.7.4(b).)		