Chicago (Nov. 26, 2012) — The Plumbing Efficiency Research Coalition (PERC) is pleased to announce that the long-anticipated study, The Drainline Transport of Solid Waste in Buildings, has been released and is now available on the PERC Website: http://www.plumbingefficiencyresearchcoalition.org. The study provides important insights into the performance of building drains and addresses opportunities for future research.

PERC was formed in January 2009 through a Memorandum of Understanding (MOU) to develop research projects that support the development of water efficiency and sustainable plumbing products, systems and practices. Projects are financed through government grants, foundations and private financing. The Coalition is comprised of industry organizations seeking to conduct much-needed research in a number of areas. PERC identified drainline transport as its first research project.

The six members of the coalition are represented by Mary Ann Dickinson, Alliance for Water Efficiency (AWE); Jim Kendzel, American Society of Plumbing Engineers (ASPE), Pete DeMarco, International Association of Plumbing and Mechanical Officials (IAPMO); Jay Peters, International Code Council (ICC); Gerry Kennedy, Plumbing-Heating-Cooling Contractors National Association (PHCC); and Barbara C. Higgens, Plumbing Manufacturers International (PMI).

“It is critically important that we gain a better understanding of how building drains perform as flows from plumbing fixtures, appliances and commercial equipment are reduced.” says DeMarco, who acted as the technical director for the study.

After the parameters of the project were defined, the coalition began seeking funding. In January 2011, PERC signed a MOU with the Australasian Scientific Review of Reduction of Flows on Plumbing and Drainage Systems Committee (ASFlow) at the offices of the U.S. Environmental Protection Agency (EPA). The MOU details several areas of collaboration between the groups to ensure that research efforts are not duplicated and that information and results are shared. ASFlow has also studied the impact of reduced water flow in sanitary drainage systems.

The Energy Policy Act of 1992 requires that all water closets (toilets) manufactured in or imported into the United States flush using no more than a maximum average of 1.6 U.S. gallons (6.0 Liters). This change was made without assessing the impact on drainline transport. After this law went into effect on Jan. 1, 1994, new models were introduced, with a significant number of consumers reporting poor flush performance. Initial research focused on flush efficacy, not the transport of that waste through drainline systems built using common designs and materials.

Toilet manufacturers have since made improvements in flushing performance for 1.6 gallons per flush (gpf), 1.28 gpf, 1.0 gpf and 0.8 gpf products. In light of changes to further reduce water consumption, the coalition felt there was a need to better understand the function of drainlines, how these systems perform, and which controllable variables impact performance. The study focused on commercial installations where toilets are becoming singularly stressed to provide transport for solid wastes.

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