



PLUMBING, MECHANICAL, FUEL
GAS, AND SWIMMING POOL & SPA

Protecting Our Water Resources: CSA B805/ICC 805-2022 Standard, Rainwater Harvesting Systems

Rainwater harvesting systems have been used to provide water to areas in need and to conserve water in parts of the world where the growing population has increased demand beyond the local water resource levels. Over the past decade, rainwater harvesting systems have become more common across North America.

There is a need for detailed parameters to ensure rainwater harvesting systems are designed and installed in a way that protects public health and safety, and makes it easier for local jurisdictions to approve the installation of these systems, which is why the Canadian Standards Association and the International Code Council formed a joint committee to create the CSA B805/ICC 805 Standard, Rainwater Harvesting Systems.

Benefits of CSA B805/ICC 805-2022

The CSA B805/ICC 805 Standard applies to the design, materials, installation, and operation of rainwater harvesting systems. Key provisions covered by the standard include the following:

- Provisions for the safe use of rainwater for potable applications (e.g., human consumption, oral care, food preparation dishwashing and bathing), as well as rainwater and stormwater (i.e., rainwater that has come in contact with the ground or a green roof) for nonpotable applications (e.g., irrigation, fire protection, toilet and urinal flushing, clothes washing, hose bibbs, decorative fountains, and vehicle washing). The standard addresses single-family residential, multi-residential, and non-residential occupancies.
- Requires development of a water safety plan, which considers the specific challenges and risks presented by the site and associated impact on source water quality, operation of system components, and the risk associated with the end use.

- Applications for harvested rainwater are separated into four end use tiers that consider the exposure potential through ingestion, inhalation, and skin contact. These tiers are further subdivided into two groups, one for single-family residential and one for multifamily, commercial and public facilities.
- Minimum performance criteria for each end use tier to address health risks, with delineated treatment process options.
- Based on the expected source water quality, this standard establishes suitable water quality parameters that are used to substantiate that the treatment process is operating as intended to produce safe water for the specified end use.

Guidance Through Codes and Standards

The 2021 International Plumbing Code (IPC) references the CSA B805/ICC 805 Standard in Chapter 13 for rainwater systems. For those states and local jurisdictions that adopt an older version of the IPC or another model plumbing code, the adoption of the CSA B805/ICC 805 Standard will provide property owners, contractors, builders, architects and code officials the guidance they need to design, approve, construct, install, and operate rainwater systems that are safe and protect water resources today and tomorrow.

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Visit www.iccsafe.org/pmg to learn more or contact advocacy@iccsafe.org for assistance with adoption of the CSA B805/ICC 805-2022 Standard.

