Fæcal sludge treatment units

What is ISO 31800 ?

A new ISO standard 31800 for pre-fabricated fæcal sludge treatment units is presently under development.[1]

ISO 31800 provides general safety and performance requirements for the product design and performance of community-scale resource recovery fæcal sludge treatment units that serve approximately 1,000 to 100,000 people.

It contains criteria for the functionality, usability, reliability, maintainability, and safety of fæcal sludge treatment units that:
- Primarily treat fæcal sludge
- Are able to operate in an off-grid and non-sewered environment
- Are prefabricated

The standard excludes guidelines for selection, installation, operation and maintenance, and management of these fæcal sludge treatment units, and neither incorporates nor substitutes for manufacturers' instructions and user manuals.

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[1] Full title: Fæcal sludge treatment units – Energy independent prefabricated community scale resource recovery units – Safety and performance requirements.

Why is ISO 31800 important?

The purpose of ISO 31800 is to safely process human waste and recover valuable resources such as water, energy, and/or nutrients through economically sustainable fæcal sludge treatment technologies in an off-grid and non-sewered environment.

Where does this standard apply?

Non-sewered sanitation treatment systems can be used in many regions around the world. Some examples are:

- Urban and rural communities without access to sewer systems
- Urban communities pursuing sustainable sanitation solutions
- Informal settlements requiring improved sanitation services
- Recreational, natural, and isolated locations
- Areas with high water stress to mitigate climate change

Who will benefit from ISO 31800?

In general, international standards are strategic tools helping to reduce costs by minimizing trial and error developments and facilitating free and fair global trade. ISO 31800 provides a framework for manufacturers of non-sewered fæcal sludge treatment units, governments, regulators, and operators (or service providers) to help assure that the sanitation systems are safe, reliable, and of good quality.

What benefits can ISO 31800 provide to manufacturers, regulators, and operators?

Manufacturers

With the publication of ISO 31800, manufacturers can now seek assurance that their prefabricated fæcal sludge treament units are compliant with the requirements in the standard. By seeking first-, second-, or third-party assessment, they will be able to inform and promote their systems to the public, users and clients as being ISO 31800-compliant, showing potential benefits for the environment and adaptable to cultural expectations.

Government/regulators

ISO 31800 will provide assurances to regulators that the pre-fabricated treatment units manufactured in accordance to the standard can contribute to the protection of public and environmental health. The standard will also facilitate the development of sound regulations representing best practices and reflecting a consensus of manufacturers, regulators, and scientific experts from the participating PC 318 country members. The standard can be a vital reference when developing regulations, and also provides the regulator the benefit of the consolidated opinion of experts without having to call on their services directly. It will enable regulators and government to tap into a periodically updated source of information.

Operators and service providers

In general, International Standards are strategic tools that reduce costs by minimizing waste and errors, increasing market opportunities, and facilitating global trade. ISO 31800 will give assurance to operators that the respected pre-fabricated fæcal sludge treatment units can be operated safely in order to protect human health and provide a cleaner environment.

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