

Chemical manufacturing

Released 12 December 2017

The sewerage system is mainly a route for domestic wastewater disposal. Our treatment process comprises physical separation of solids, the biological decomposition of organic material and final disinfection of the treated water.

Many chemicals are toxic to or inhibit the biological treatment process we use, are only partly removed or not removed at all by our process and remain in the treated water and residual biosolids. Some chemicals can generate explosive or toxic gases in sewers, corrode or otherwise harm the sewerage system. Even small discharges of some chemicals can have a serious impact. Appropriate management practices at each site are needed.

For the purpose of this guideline 'chemical manufacturing' refers to the production of chemical compounds or mixtures from constituent materials and includes repackaging of bulk materials into smaller containers for sale.

General considerations

We do not accept to sewer chemicals in concentrated form, such as spent process solutions, reagents or unwanted/spoiled formulations.

We may consent to accept chemicals in trace amounts in trade waste discharges, such as from the rinsing of vessels, providing they:

- do not pose a hazard to our workers
- can be safely transported in our sewerage networks
- are compatible with our treatment process
- do not adversely affect the quality of our treated water or residual biosolids.

Our [Restricted Wastewater Acceptance Standards](#) provide limits for common chemicals and should be consulted in the first instance. Further research to establish the biodegradability and environmental fate of each chemical on site is required before establishing acceptable management/disposal protocols. Where discharge to sewer as trade waste is appropriate, pre-treatment to achieve acceptable discharge quality is often necessary. Dilution is not an acceptable means of achieving acceptable quality.

Best practice management aspects

- A comprehensive waste management plan is in place, which includes clear responsibilities and documented procedures for managing routine discharges as well as spills or leaks.
- A register is kept of all chemicals stored on site, including industrial strength detergents and other cleaners, with their respective volumes.
- All work site staff are trained in the appropriate waste disposal methods.

- Equipment is readily available for managing spills and leaks.

Design/installation

- The site is designed to prevent the direct entry of chemicals to sewer from work or storage areas, by the use of bunds or other means consistent with the [Bunding and Blind Tanks Guideline](#).
- Appropriate pre-treatment for relevant contaminants in used water should be carefully considered.
- Where we agree to accept trade waste discharges containing chemicals to sewer, these are made in accordance with the [Batch Treatment Guideline](#).
- Ongoing regular discharges may be approved from ancillary processes such as water treatment, boiler blowdown or laboratory, providing they meet acceptance standards.
- Stormwater is specifically prohibited from discharge to sewer in the [Water Industry Act 2012](#) to prevent flooding of sewers. We expect operators to use effective roofs over bunded areas to exclude stormwater or use the alternative disposal methods as set out in The South Australian Environment Protection Authority's [Bunding and Spill Management Guideline, EPA 080/07](#).
- We will only approve the disposal of contaminated stormwater to sewer in **exceptional** circumstances and in accordance with [Contaminated Stormwater Guideline](#) and may be subject to stormwater charges.

More information

Mains Water Protection (AS/NZS 3500.1:2015)

[Backflow Prevention Requirements - Office of the Technical Regulator](#)

[Water Treatment Guideline](#)

[Boiler Guideline](#)

[Laboratory and Clinical Practices Guideline](#)