Permitting Considerations for
Industrial Operations with Onsite Sanitary Wastewater Disposal

Large industrial operations may generate domestic (sanitary) wastewater in addition to industrial wastewater. In such situations, the sanitary and industrial wastewaters may be treated and disposed separately or together, either onsite or offsite.

Wastewater permits issued and renewed by DEP are based on the statutes and rules in effect at the time of permit issuance or renewal (Rule 62-620.620(1), F.A.C.). The permit applicant needs to provide reasonable assurance that discharge from the facility to waters of the state will meet applicable water quality standards. Effluent limitations are established, as needed, for parameters that have the potential to cause or contribute to exceedances of water quality standards in receiving waters (Rules 62-620.620(1) and 62-650.300(1), F.A.C.)

Separate Treatment and Disposal of Sanitary and Industrial Wastewater

In some situations, industrial and sanitary wastewater are treated and disposed separately. For example, industrial wastewater may be discharged under an NPDES permit, while sanitary wastewater from the same facility is piped to a domestic treatment facility offsite, or treated either onsite or offsite and disposed in accordance with applicable domestic wastewater regulations. In this example, the industrial facility should not have the potential to cause or contribute to exceedances by pollutants that are exclusively associated with sanitary wastewater (indicators of human pathogens, for example). Therefore, the industrial wastewater NPDES permit would not include effluent limitations for sanitary wastewater parameters, because the NPDES permit would not authorize a discharge of domestic wastewater to the waters of the State.

Combined Disposal of Sanitary and Industrial Wastewater

In other industrial operations, sanitary wastewater is treated and discharged along with the industrial wastewater. In cases where the sanitary wastewater is treated and disinfected before it is mixed with the main industrial wastewater stream, the sanitary wastewater can be monitored before mixing to ensure compliance with applicable disinfection requirements in Subsections 62-600.440(3)-(6), F.A.C. This scenario would include cases where the sanitary wastewater is disinfected using typical measures for domestic wastewater (e.g. chlorination) and cases where disinfection is provided by mixing with a substream of the industrial wastewater capable of sufficient disinfection. In either case, effluent monitoring and limits may be established at internal outfalls prior to being combined with the main industrial wastewater stream, consistent with Subsection 62-620.320(1), F.A.C. This offers the advantage that smaller internal waste streams may be treated more economically, and often monitored more easily, than larger direct discharges.

At a few large industrial operations, the sanitary and industrial wastewater may be commingled within the facility in a configuration that makes separate treatment and disinfection infeasible. For example, sanitary wastewater from individual manufacturing and office buildings may be routed to onsite industrial process wastewater sewers. In such situations, a permittee would need to provide reasonable assurance that treatment of the combined wastewater is capable of sufficient disinfection to meet applicable sanitary wastewater requirements. Demonstration of reasonable assurance would be site-specific based on the unique configuration of treatment processes at the facility, and the NPDES permit may include effluent limitations for both industrial and sanitary parameters in the combined discharge. Demonstrations could include monitoring for E. Coli at internal locations that meet the freshwater definition, or a combination of other methods to characterize identified bacteria sources as predominantly of non-human origin.