

23 25 00 HVAC WATER TREATMENT

.10 Discharges to Sanitary Sewer System

1. Discharges from HVAC systems could negatively impact domestic wastewater treatment facilities and could cause regulatory compliance issues and adverse environmental impacts. All discharges from HVAC systems to the sanitary sewer system at the University Park Campus, New Kensington Campus and Wilkes-Barre Campus shall comply with these requirements. Discharges from HVAC systems to the sanitary sewer system at other Penn State Campuses shall comply with the applicable rules and regulations of the receiving wastewater treatment system or local authority having jurisdiction.
2. Authorization of Discharge
 - a. Unless otherwise exempt, all discharges to the sanitary sewer system shall require written authorization from the Penn State Wastewater Utility Group as follows:
 - i. Complete and submit the "Request for Temporary Discharge" form (See 33 30 00 - Request for Temporary Discharge). The form shall be submitted at least 5 working days prior to the proposed discharge.
 - ii. If requested, a representative sample of the proposed discharge shall be supplied to the Wastewater Utility Group for evaluation.
 - b. The Wastewater Utility Group shall review the information provided to determine if the requested discharge to the sanitary sewer system is acceptable.
 - c. If the discharge request is acceptable, the Wastewater Utility Group will provide written authorization, along with any special conditions of the authorization. All special conditions of the authorization shall be strictly complied with. If the contractor cannot comply with the special conditions, the contractor is responsible for coordinating proper disposal at their cost through the University's chemical waste management program. The contractor has the option of temporarily capturing the discharge onsite in authorized containers and location to control or modify the water quality and/or discharge flow rate in order to comply with the special conditions.
 - d. If the discharge request is unacceptable, the Wastewater Utility Group will provide written denial of the discharge request. A new or revised "Request for Temporary Discharge" form can be submitted for consideration.
 - e. All discharges from HVAC systems that are not discharged to the sanitary sewer system shall be closely coordinated with Penn State Environmental Health and Safety (EHS) for proper collection and disposal.
3. Exemptions – The following discharges to the sanitary sewer system from HVAC systems are exempt from authorization of the Penn State Wastewater Utility Group:
 - a. The initial flushing of new closed loop systems, open recirculating systems and steam boilers (regardless of volume), as long as no chemicals have been added to the system. This exemption does not apply to chemical cleaning and flushing of these systems.
 - b. Normal blow down water from open recirculating systems (regardless of volume), as long as the chemical inhibitor system is being operated per the standard operating procedure. This exemption does not apply to chemical cleaning and flushing of these systems.
 - c. If the proposed discharge meets ALL of the criteria outlined below, then the discharge is automatically exempt:
 - i. Work is being conducted by the Penn State OPP Hydronics Staff, and



- ii. For a closed loop system, the total volume is less than 500 gallons, and
- iii. Discharge flow rate to the sanitary sewer system does not exceed 1 gallon per minute, and
- iv. Initial discharge contains less than 1% ethylene glycol (by volume), and
- v. Initial discharge contains less than 35% propylene glycol (by volume), and
- vi. Initial discharge contains less than 600 ppm nitrite, and
- vii. Initial discharge contains less than or equal to 2% (by volume) of cleaning solution, and
- viii. Discharge meets Penn State Policy SY 40 for Disposal of Pollutants in University Sanitary System.