


JOHNSON COUNTY
KANSAS
Wastewater

Johnson County Wastewater Public Pool Form

1. Project Name: _____
2. Project Address: _____
3. City: _____
4. Filter System Type (circle one): Regenerative i.e. requires backwash (ex. Sand, DE, etc.) OR Non-regenerative i.e. does not require backwash (ex. Cartridge)
5. Disinfection System Type (circle one): Chlorine (or Bromine) or Salt Water or Other
6. Pools shall not be connected to, or otherwise be drained to, the sanitary sewer system with exception for the following in accordance with the Johnson County Environmental Sanitary Code or applicable City storm water codes for public pools:
 - Backwash on all pools with regenerative filters.
 - Salt water disposal for pool winterization or maintenance where the City will not allow the pool salt water to be drained to grade or the storm sewer system.

Required discharges to the sanitary sewer system shall be limited to 50 gpm (max.) by an orificed discharge. JCW may reduce the allowed discharge rate based on location in the collection system. Discharge to the sanitary sewer shall not be continuous.

7. Orifice Design:
 - a. The orifice shall limit flow to 50 gpm (max.). Use the following calculation:
Area (A, sf) = $[0.11 \text{ cfs} / (0.61) [(64.4 \text{ fps}^2)(H, \text{ft})]^{1/2}]$
Head (H, ft) _____ = Finish Grade Elevation _____ ft – Orifice Centerline Elevation _____ ft – 1 ft freeboard allowance
Orifice Diameter: _____ inches
 - b. The orifice basin shall be located outside of the building and accessible by JCW at all times.
 - c. Provide and reference the orifice and basin details on the JCW Permit Page. The details are available at www.jcw.org on the Commercial Permitting page under Permitting in the Development and Permitting section.
8. Regenerative Filter Backwash:
 - a. Backwash Cycle Frequency: _____ times per week. Discharge shall not be continuous.
 - b. Filter Pump Rate: _____ gpm. Attach the pool system pump curve with the operating point clearly shown and labeled.
 - c. Backwash Cycle Duration: _____ minutes
 - d. Required Orifice Basin Volume: _____ gal = Pump Rate x Backwash Cycle Duration

e. Provided Orifice Basin Volume: (Inlet Pipe F/L Elevation _____ ft – Outlet Pipe F/L Elevation _____ ft) x Basin Area (foot print) _____ sf = _____ cubic ft = _____ gallons

9. Salt Water Disposal: For disposal of salt water from pool winterization or maintenance where the City does not allow salt water to be drained to grade or the storm sewer system:

a. Volume shall be included in the orifice basin to accommodate the draining rate. Provide calculations showing the required orifice basin volume.

- i. Volume Drained: _____ gallons
- ii. Duration of Discharge at 50 gpm: _____ minutes
- iii. Salinity Concentration of Drained Water: _____ mg/l

b. Included the following note on the pool plans and JCW Permit Plan: *Pool salt water disposal shall be halted if a significant rainfall event is experienced. Discharge may resume three days following the significant rainfall event. Contact Johnson County Wastewater at (913)715-8500 if there is doubt concerning what constitutes a significant rainfall event.*

10. Pool Winterization and Maintenance: Describe of method for draining the pool for winterization or maintenance:

REMINDER: Chlorine (or Bromine) treated pools shall not be drained to the sanitary sewer.

11. Pool Chemicals:

a. Show and label all chemical use and storage areas on the project plans.

b. List types and volumes of chemicals to be used and stored:

c. Describe the method to prevent discharge of chemicals to the sanitary sewer system when applicable.

12. All calculations shall be sealed by a Kansas licensed professional engineer.

Pool Form 1-29-18