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TEXAS COMMISSION ON ENVIRONMENTAL QUALITY

Protecting Texas by Reducing and Preventing Pollution

July 21, 2025

Mr. Grady Tucker, CEO
AquaKlear, Inc.
876 North Bierdeman Road,
Pearl, Mississippi, 39208

Re: Approval of proprietary OSSF system for:
AquaKlear, Inc.
Model AK7.5S245CA

Dear Grady Tucker:

We have received your request for a Texas Commission on Environmental Quality (TCEQ) review of the above-referenced proprietary system, with supporting documentation, on May 8, 2025. Cindy Rojas Annicchiarico of the TCEQ Technical Programs Team conducted the review, as required by 30 Texas Administrative Code (TAC) §285.5(b)(3). After reviewing your request and supporting documentation, TCEQ has determined that the AquaKlear AK7.5S245CA model treatment product meets the applicable technical requirements. **This letter serves as notification of approval for use in the State of Texas as an approved proprietary system.** Please be advised, the review of individual OSSF applications is a separate action and this letter is not an authorization to install an individual OSSF.

The Gulf Coast Testing (GCT) Supplemental Report SPE420, covering model AK7.5S245CA, dated February 22, 2022, analyzes the proposed scale-up of Model AK6S245C to treat 750 gallons per day under the provisions of NSF/ANSI Standard 40 (2020) and NSF/ANSI Standard 245 (2020). This approval for the model AK7.5S245CA is based on the GCT authorization, which states that its performance conforms to NSF Standard 40 for Class 1 residential wastewater effluent. It has been determined that the proposed Model AK7.5S245CA is proportionally equivalent to the tested unit, constructed of the same material, and has an equivalent flow system. This approval for the AK6S245C product is based on the GCT authorization that it and its performance conform with NSF Standard 40 for Class 1 residential wastewater effluent.

Important conclusions from the provided GCT report are as follows:

- The construction and design of the AK7.5S245CA treatment system are proportionately similar and substantially equivalent to the tested system. The volumes and retention time in hours (HRT) of the AK7.5S245CA treatment system are also proportionally similar and substantially equivalent to those of the tested system, as shown in Table 1, and thus meet or exceed the criteria of Section 8.5 of the Standard.
- The AquaKlear Model AK6S245C met the requirements of Standards 40 (2019) and 245 (2019) during concurrent testing, as presented in the SPE352 GCT report. Additionally, Models AK6S245C and AK7.5S245CA have a rated treatment capacity of 600 and 750 gallons per day, respectively, meeting the scope requirements of Section 1.2.
- The Model AK6S245C was used to evaluate the proposed model, as it is the smallest rated hydraulic capacity in its series, meeting the requirements of Section 1.4.

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- The proposed aerators (as shown in Table 2) to be used on the AK7.5S245CA will meet the requirements of Section 5.11 of Standards 40 and 245.

The AquaKlear Model AK7.5S245CA is a conventional activated sludge process with pretreatment, aeration, and clarification compartments. It utilizes the same aerator model as the tested unit, as shown in Table 2. The AquaKlear, Inc. Model AK6S245C treatment system was tested and approved with a Thomas EP-50AK aerator with a dual outlet blower. Based on the performance curves presented on the SPE352 GCT report for model AK6S245C, this aerator is expected to produce 1.5 cubic feet per minute (cfm) of air at a pressure of 2.5 pounds per square inch (psi). The AK7.5S245CA treatment system requires the same amount of aeration as the AK6S245C model.

	Model AK6S245C		Model AK7.5S245CA		
	600 gallons/day		750 gallons/day		
Compartment	Volume (Gallons)	HRT (Hours)	Volume (Gallons)	HRT (Hours)	Change %
Pretreatment	424	17.0	500	16.0	-5.7%
Aeration	520	20.8	633	20.3	-2.6%
Clarification	188	7.5	220	7.0	-6.4%

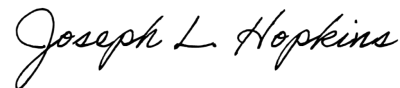
Table 1. Compartment Volume comparison, as cited in the Gulf Coast Testing (GCT) Supplemental Report for Model AK7.5S245CA, February 22, 2022

Model Number	Aerator	Diffuser
AK7.5S245CA	Thomas EP-50AK	Hiblow Model: 13A 300L

Table 2. Aerator and diffuser for AK7.5S245CA model, as cited in the Gulf Coast Testing (GCT) Supplemental Report for Model AK7.5S245CA, February 22, 2022

If you have any questions, or if we may be of assistance to you, please contact Cindy Rojas Annicchiarico in the TCEQ Technical Programs Team at (512) 239-5146 or via e-mail at Cindy.Annicchiarico@tceq.texas.gov.

Sincerely,



Joseph L. Hopkins, P.G.
Technical Programs Team Leader
Texas Commission on Environmental Quality

JLH/CRA