TEXAS COMMISSION ON ENVIRONMENTAL QUALITY

Protecting Texas by Reducing and Preventing Pollution

September 2, 2025

Mr. Derrick Scoggins
Enviro-Flo, Inc.
151 Custom Drive
Flowood, Mississippi, 39232

Re: Approval of proprietary OSSF treatment system for:
Enviro-Flo, Inc.
Models Aqua-Flo AF500, AF500M, AF500 CC, AF500 3PT, AF600, AF600 CC, AF600 4PT, AF750, AF1000, AFT1000, AF1500, and AFT1500

Dear Derrick Scoggins:

We have received your request for a Texas Commission on Environmental Quality (TCEQ) review of the above-referenced proprietary system, with supporting documentation, on August 4 and 25, 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 Aqua-Flo Product series, shown in Table 1, treatment products meet 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.

Product Name	Treatment Capacity (Gallons per Day)
AF-500	500
AF500M	500
AF500 CC	500
AF500 3PT	500
AF-600	600
AF600 CC	600
AF600 4PT	600
AF-750	750
AF-1000	1,000
AFT-1000	1,000
AF-1500	1,500
AFT-1500	1,500

Table 1: Approved Aqua-Flo Series

The Gulf Coast Testing (GCT) Supplemental Report SPE341, covering model Aqua-Flo AF500M, AF500 CC, AF500 3PT, AF600, AF600 CC, AF600 4PT, AF750, AF1000, AFT1000, AF1500, and AFT1500, dated June 1, 2019, analyzes the proposed scale-up of Model AF500 under the provisions of NSF/ANSI Standard 40 (2018). This approval for the requested Aqua-Flo models (see table 1) is based on the GCT authorization, which states that its performance conforms to NSF Standard 40 for Class 1 residential wastewater effluent. It was determined that the proposed Models shown in Table 1 are proportionally equivalent to the tested unit, constructed of the same material, and have an equivalent flow system. This approval for the Aqua-Flo Series

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 AF500 wastewater treatment unit was fully tested and shown to be in conformance with the guidelines and procedures established by NSF/ANSI Standard 40 (2013) on the SPE290 Report dated April 1, 2019. The unit achieved an average CBOD5 of 14 mg/l and an average TSS of 15 mg/l.
- As allowed by NSF/ANSI Standard 40 Section 1.3, Enviro-Flo, Inc. proposed models with alternate designs to treat 500 gallons per day residential wastewater. GCT analyzed the models, and the Models AF500M, AF500 3PT, and AF500 CC are proportional and substantially equivalent to the Model AF500. Therefore, the proposed models will meet the requirements of Section 8.5 of Standard 40 and are certified to Standard 40.
- As allowed by NSF/ANSI Standard 40 Section 1.4, Enviro-Flo, Inc. proposed scaled-up models of the AF500. GCT analyzed the models, and models AF600, AF600 4PT, AF600 CC, AF750, AF1000, AFT1000, AF1500, and AFT1500 are proportional and substantially equivalent to the Model ASO-500. Therefore, the proposed models were found to meet the requirements of Section 8.5 of Standard 40 and are certified to Standard 40.
- GCT analyzed the aeration systems for each proposed design change model and scaled-up model. The tested Model AF500 used a Thomas AP40. Based on the aerator curves for the Thomas AP, the required air volume for the AF500 is 1.6 cubic feet per minute. Standard 40 requires each proposed model to deliver flow in the range of 90 to 130% of the flow produced by the original air delivery component. GCT analyzed the aerators' performance in the proposed models based on the water depth. The approved aerators listed in Table 13 met the conditions established by Section 5.11 of Standard 40.

The Aqua-Flo Models AF500, AF500M, AF500 CC, AF500 3PT, AF600, AF600 CC, AF600 4PT, AF750, AF1000, AFT1000, AF1500, and AFT1500 are a conventional activated sludge process and utilize an extended aeration system to achieve treatment. The Aqua-Flo Models AF-500, AF500M, AF500 CC, AF-600, AF-750, AF-1000, AFT-1000, AFT-1500, and AF-1500 have two treatment compartments, while the Models AF500 3PT and AF600 4PT have three treatment compartments. The AF500 CC and AF600 CC incorporate a pump tank as part of their design; however, pump tanks are not part of the biological process and were not considered in the GCT analysis. The pretreatment tank on Model AF500 3PT and AF600 4PT provides additional hydraulic retention time and enhances the treatment capability.

Table 2-12 compares the compartment volumes of the tested Model AF500 with the proposed scaled-up 600, 750, 1000, and 1500 gallon per day models. The tables show that the hydraulic retention time (HRT) of the proposed models compare favorably with the tested model. In addition, the geometric shapes and construction material are proportionately similar and substantially equivalent.

	Model AF500		**Model AF500M**		
	500 gallons/day		500 gallons/day		
Compartment	Volume (Gallons)	HRT (Hours)	Volume (Gallons)	HRT (Hours)	Change %
Aeration	520	25.0	522	25.1	0.4%
Clarification	188	9.0	168	8.1	-10.6%

Table 2. Compartment Volume comparison, as cited in the Gulf Coat Testing (GCT) Supplemental Report for Model AF600, June 1, 2019

	Model AF500		**Model AF500 CC**		
	500 gallons/day		500 gallons/day		
Compartment	Volume (Gallons)	HRT (Hours)	Volume (Gallons)	HRT (Hours)	Change %
Aeration	520	25.0	520	30.6	0.0%
Clarification	188	9.0	188	6.0	0.0%
Pump	0	0	150	7.2	NA

Table 3. Compartment Volume comparison, as cited in the Gulf Coat Testing (GCT) Supplemental Report for Model AF600, June 1, 2019

	Model AF500		**Model AF500 3PT**		
	500 gallons/day		500 gallons/day		
Compartment	Volume (Gallons)	HRT (Hours)	Volume (Gallons)	HRT (Hours)	Change %
Pretreatment	0	0.0	330	15.8	NA
Aeration	520	25.0	520	25.0	0.0%
Clarification	188	9.0	188	9.0	0.0%

Table 4. Compartment Volume comparison, as cited in the Gulf Coat Testing (GCT) Supplemental Report for Model AF600, June 1, 2019

	Model AF500		**Model AF600**		
	500 gallons/day		600 gallons/day		
Compartment	Volume (Gallons)	HRT (Hours)	Volume (Gallons)	HRT (Hours)	Change %
Aeration	520	25.0	650	26	4.2%
Clarification	188	9.0	220	8.8	-2.5%

Table 5. Compartment Volume comparison, as cited in the Gulf Coat Testing (GCT) Supplemental Report for Model AF600, June 1, 2019

	Model AF500		**Model AF600 4PT**		
	500 gallons/day		600 gallons/day		
Compartment	Volume (Gallons)	HRT (Hours)	Volume (Gallons)	HRT (Hours)	Change %
Pretreatment	0	0.0	500	20.0	NA
Aeration	520	25.0	633	25.3	1.4%
Clarification	188	9.0	193	7.7	-14.5%

Table 6. Compartment Volume comparison, as cited in the Gulf Coat Testing (GCT) Supplemental Report for Model AF600, June 1, 2019

	Model AF500		**Model AF600 CC**		
	500 gallons/day		600 gallons/day		
Compartment	Volume (Gallons)	HRT (Hours)	Volume (Gallons)	HRT (Hours)	Change %
Aeration	520	25.0	650	26.0	4.2%
Clarification	188	9.0	220	8.8	-2.5%
Pump	0	0	140	5.6	NA

Table 7. Compartment Volume comparison, as cited in the Gulf Coat Testing (GCT) Supplemental Report for Model AF600, June 1, 2019

	Model AF500		**Model AF750**		
	500 gallons/day		600 gallons/day		
Compartment	Volume (Gallons)	HRT (Hours)	Volume (Gallons)	HRT (Hours)	Change %
Aeration	520	25.0	810	25.9	3.8%
Clarification	188	9.0	285	9.1	1.1%

Table 8. Compartment Volume comparison, as cited in the Gulf Coat Testing (GCT) Supplemental Report for Model AF750, June 1, 2019

	Model AF500		**Model AF1000**		
	500 gallons/day		1000 gallons/day		
Compartment	Volume (Gallons)	HRT (Hours)	Volume (Gallons)	HRT (Hours)	Change %
Aeration	520	25.0	985	23.6	-5.3%
Clarification	188	9.0	340	8.2	-9.6%

Table 9. Compartment Volume comparison, as cited in the Gulf Coat Testing (GCT) Supplemental Report for Model AF1000, June 1, 2019

	Model AF500		**Model AFT1000**		
	500 gallons/day		1000 gallons/day		
Compartment	Volume (Gallons)	HRT (Hours)	Volume (Gallons)	HRT (Hours)	Change %
Aeration	520	25.0	1254	30.1	20.6%
Clarification	188	9.0	353	8.5	-6.1%

Table 10. Compartment Volume comparison, as cited in the Gulf Coat Testing (GCT) Supplemental Report for Model AFT1000, June 1, 2019

	Model AF500		**Model AF1500**		
	500 gallons/day		1500 gallons/day		
Compartment	Volume (Gallons)	HRT (Hours)	Volume (Gallons)	HRT (Hours)	Change %
Aeration	520	25.0	1440	23.0	-7.7%
Clarification	188	9.0	550	8.8	-2.5%

Table 11. Compartment Volume comparison, as cited in the Gulf Coat Testing (GCT) Supplemental Report for Model AF1500, June 1, 2019

	Model AF500		**Model AFT1500**		
	500 gallons/day		1500 gallons/day		
Compartment	Volume (Gallons)	HRT (Hours)	Volume (Gallons)	HRT (Hours)	Change %
Aeration	520	25.0	1746	27.9	11.9%
Clarification	188	9.0	645	10.3	14.4%

Table 12. Compartment Volume comparison, as cited in the Gulf Coat Testing (GCT) Supplemental Report for Model AFT1500, June 1, 2019

Model Number	Aerator	Thomas AP40 cfm	Thomas AP60 cfm	Thomas AP80 cfm	Thomas AP100 cfm	Thomas AP120 cfm
AF500	500	Approved				
AF500M	500	Approved				
AF500 3PT	500	Approved				
AF500 CC	500	Approved				
AF600	600		Approved			
AF600 4PT	600		Approved			
AF600 CC	600		Approved			
AF750	750		Approved	Approved		
AF1000	1,000			Approved	Approved	
AFT1000	1,000			Approved	Approved	
AF1500	1,500					Approved
AFT1500	1,500					Approved

Table 13. Approved Aerators, as cited in the Gulf Coat Testing (GCT) Supplemental Report for Model AF500 covering the Aqua-Flo AF500 3PT, AF500M, AF500 CC, AF500 3PT, AF600, AF600 CC, AF600 4PT, AF750, AF1000, AFT1000, AF1500, and AFT1500 Models, dated June 1, 2019.

This approval also notes that the subject units do not include pump chambers. All pump tanks are subject to the requirements specified in 30 TAC §285.34(b).

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

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

JLH/CRA