

**DEPARTMENT OF HEALTH AND HUMAN SERVICES
DIVISION OF PUBLIC HEALTH
ENVIRONMENTAL HEALTH SECTION
ON-SITE WATER PROTECTION BRANCH**

North Carolina Residential Wastewater Treatment System Approval

Issued To: Norweco, Inc.
220 Republic St
Norwalk, OH 44857-1196

Contact Name: Leslie Barber
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For: Singlair® Bio-Kinetic Model 960 Series and Model TNT Series

Date: September 17, 2007
December 31, 2024 Updated for 15A NCAC 18E and renewed for 2025
December 31, 2025 Renewed for 2026

I. Approved Models

Residential wastewater treatment systems shall be manufactured as per the approved drawings, specifications and testing results, and in concurrence with 15A NCAC 18E Section .1500.

Approved models, corresponding daily design flow rates, and approved RWTS numbers are as follows:

| <u>Model Number</u> | <u>Approved Design Daily Flow Rate</u> | <u>RWTS Number</u> |
|---------------------|--|--------------------|
| 960-500 | 500 gpd | RWTS-7 |
| 960-500 | 600 gpd | RWTS-52 |
| 960-750 | 750 gpd | RWTS-8 |
| 960-1000 | 1,000 gpd | RWTS-9 |
| 960-1250 | 1,250 gpd | RWTS-10 |
| 960-1500 | 1,500 gpd | RWTS-11 |

Singlair Bio-Kinetic Model 960-LP (Low Profile)

| <u>Model Number</u> | <u>Approved Daily Design Flow Rate</u> | <u>RWTS Number</u> |
|---------------------|--|--------------------|
| 960-LP-500 | 500 gpd | RWTS-53 |
| 960-LP-500 | 600 gpd | RWTS-54 |
| 960-LP-1000 | 1,000 gpd | RWTS-55 |

Singlair Bio-Kinetic Model 960-OP (One Piece)

| <u>Model Number</u> | <u>Approved Daily Design Flow Rate</u> | <u>RWTS Number</u> |
|---------------------|--|--------------------|
| 960-OP-500 | 500 gpd | RWTS-56 |
| 960-OP-500 | 600 gpd | RWTS-57 |
| 960-OP-1000 | 1,000 gpd | RWTS-58 |

Singlair Bio-Kinetic Model TNT

| <u>Model Number</u> | <u>Approved Daily Design Flow Rate</u> | <u>RWTS Number</u> |
|---------------------|--|--------------------|
| TNT-500 | 500 gpd | RWTS-59 |
| TNT-500 | 600 gpd | RWTS-60 |
| TNT-750 | 750 gpd | RWTS-61 |
| TNT-1000 | 1,000 gpd | RWTS-62 |
| TNT-1250 | 1,250 gpd | RWTS-63 |
| TNT-1500 | 1,500 gpd | RWTS-64 |

Singlair Bio-Kinetic Model TNT-LP (Low Profile)

| <u>Model Number</u> | <u>Approved Daily Design Flow Rate</u> | <u>RWTS Number</u> |
|---------------------|--|--------------------|
| TNT-LP-500 | 500 gpd | RWTS-65 |
| TNT-LP-500 | 600 gpd | RWTS-66 |
| TNT-LP-1000 | 1,000 gpd | RWTS-67 |

Singlair Bio-Kinetic Model TNT-OP (One Piece)

| <u>Model Number</u> | <u>Approved Daily Design Flow Rate</u> | <u>RWTS Number</u> |
|---------------------|--|--------------------|
| TNT-OP-500 | 500 gpd | RWTS-68 |
| TNT-OP-500 | 600 gpd | RWTS-69 |
| TNT-OP-1000 | 1,000 gpd | RWTS-70 |

II. Approved Settling Tanks

The approved settling tanks for each of the model numbers are as specified below:

| <u>Model Numbers</u> | <u>Approved Settling Tank</u> |
|--------------------------------------|--|
| All 960-500 and all TNT-500 models | Integral part of tank, minimum capacity of 450 gallons as per approved plans |
| 960-750 and TNT-750 | Integral part of tank, minimum capacity of 500 gallons as per approved plans |
| All 960-1000 and all TNT-1000 models | Separate state approved 1,000 gallon septic tank |
| 960-1250 and TNT-1250 | Separate state approved 1,250 gallon septic tank |
| 960-1500 and TNT-1500 | Separate state approved 1,500 gallon septic tank |

III. Sampling

Effluent samples shall be taken from an approved sampling port. For installations with gravity fall to the soil absorption system, the sampling port shall be located immediately downstream of the tank outlet in a manufacturer provided Tipping Distribution Box. For installations with an effluent dosing station, the sampling port shall be located immediately following the drainfield dosing pump (prior to the spin filters for drip systems). The approved sampling port shall include a ½-inch tap with ball valve in the discharge line inside the pump tank riser. To obtain the sample, the ball valve shall be fully open with the pump running for at least 30 second before taking the grab sample. Effluent samples shall be tested for CBOD and TSS.

Effluent samples shall be tested for CBOD and TSS.

If needed, influent samples shall be taken from beneath the access opening over the pretreatment chamber. The sample shall be taken from the clear zone beneath any scum layer using a sludge judge or similar device.

Systems shall be sampled annually for design flows less than 1,500 gallons per day.

All sampling shall be done in accordance with Rule 15A NCAC 18E .1302.

IV. Flow Monitoring

Flow monitoring shall include a determination of the 7-day and 30-day flow for the corresponding time period preceding each operator inspection/sample collection. Where effluent flows by gravity to the receiving environment, the Tipping Distribution Box shall include a manufacturer provided counter and data logger capable of recording the daily flow from the tipper "counts" for at least the last 30 days. For installations where effluent is under pressure, flows shall be determined either by using the Tipping Distribution Box and counter/data logger or an elapsed time meter/data logger in the effluent pumping station control panel.

When a drip distribution system is proposed, either the Norweco Tipping Distribution Box shall be used, or the drip manufacturer shall provide the necessary flow monitoring capability with their separate drip system control panel.

V. Operation, maintenance and monitoring requirements

The operator must be a licensed subsurface operator.

For all systems, Norweco shall provide for the ongoing operation and maintenance of their systems. Norweco shall make available to the owner an operation and maintenance contract that meets the requirements of 15A NCAC 18E .1303(b). The contract shall be renewable, and the contract term shall be for a minimum of one year.

The operator must either work for Norweco, be an authorized representative of Norweco, or be authorized in writing by Norweco or their authorized representative to operate the system.

The State may modify, suspend, or revoke the approval of a system as follows:

- a. The system approval shall be modified as necessary to comply with subsequent changes in the laws or rules which affect their approval.
- b. The approval of a system may be modified, suspended, or revoked upon a finding that:
 1. the system or component fails to perform in compliance with performance standards established for the system; or
 2. the system, component, or the system applicant fails to comply with wastewater system laws, rules, or conditions of the approval.