

**DIVISION OF ENVIRONMENTAL HEALTH  
ON-SITE WATER PROTECTION SECTION**

**North Carolina Residential Wastewater Treatment System Approval**

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

**For:** Singulair® Bio-Kinetic Model 960 Series and Model TNT Series

**Date:** September 17, 2007

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 18A .1957(c).

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

Singulair Bio-Kinetic Model 960

<u>Model Number</u>	<u>Approved Daily Design 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

Southern Block Company, Inc, is approved to manufacture the concrete tanks for the above approved models under the following approval numbers:

<u>Model Number</u>	<u>Approval Number</u>
960-500	SB/NW RWTS-7 500
960-500	SB/NW RWTS-52 600
960-750	SB/NW RWTS-8 750
960-1000	SB/NW RWTS-9 1000
960-1250	SB/NW RWTS-10 1250
960-1500	SB/NW RWTS-11 1500

Wilson Concrete Products is approved to manufacture the concrete tanks for the above approved models under the following approval numbers:

<u>Model Number</u>	<u>Approval Number</u>
960-500	WCP/NW RWTS-7 500
960-500	WCP/NW RWTS-52 600
960-750	WCP/NW RWTS-8 750
960-1000	WCP/NW RWTS-9 1000
960-1250	WCP/NW RWTS-10 1250
960-1500	WCP/NW RWTS-11 1500

Singular 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

Singular 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

Singular 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

Southern Block Company, Inc, is approved to manufacture the concrete tanks for the above approved models under the following approval numbers:

<u>Model Number</u>	<u>Approval Number</u>
TNT-500	SB/NW RWTS-59 500
TNT-500	SB/NW RWTS-60 600
TNT-750	SB/NW RWTS-61 750
TNT-1000	SB/NW RWTS-62 1000
TNT-1250	SB/NW RWTS-63 1250
TNT-1500	SB/NW RWTS-64 1500

Wilson Concrete Products is approved to manufacture the concrete tanks for the above approved models under the following approval numbers:

<u>Model Number</u>	<u>Approval Number</u>
TNT-500	WCP/NW RWTS-59 500

TNT-500	WCP/NW RWTS-60 600
TNT-750	WCP/NW RWTS-61 750
TNT-1000	WCP/NW RWTS-62 1000
TNT-1250	WCP/NW RWTS-63 1250
TNT-1500	WCP/NW RWTS-64 1500

Singular 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

Singular 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 Number</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. Influent and Effluent Sampling

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. Influent samples shall be tested for BOD and TKN.

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.

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 18A .1970(n).

#### IV. Flow Monitoring

Flow monitoring shall include a determination of the 7-day and 30-day flow for the corresponding time period preceding each ORC 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 ORC must be both a Grade II licensed wastewater treatment facility operator and a licensed subsurface operator.

For systems installed after July 1, 2006, Norweco, Inc. shall provide for the ongoing operation and maintenance of their systems. Norweco, Inc. shall make available to the owner an operation and maintenance contract that meets the requirements of 15A NCAC 18A .1961. The contract shall be renewable and the contract term shall be for a minimum of one year.

For systems installed prior to July 1, 2006, Norweco, Inc. shall provide an optional renewable yearly operation and maintenance contract with the owner the meets the requirements of 15A NCAC 18A .1961.

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

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

- (1) The system approval shall be modified as necessary to comply with subsequent changes in the laws or rules which affect their approval.
- (2) The approval of a system may be modified, suspended or revoked upon a finding that:
  - (A) subsequent experience with the system results in altered conclusions about system performance, reliability, or design;
  - (B) the system or component fails to perform in compliance with performance standards established for the system; or

(C) the system or component or the system applicant fails to comply with wastewater system laws, rules or conditions of the approval.