



Oregon

Kate Brown, Governor

Department of Environmental Quality
Western Region Eugene Office
165 East 7th Avenue, Suite 100
Eugene, OR 97401
(541) 686-7838
FAX (541) 686-7551
TTY 711

August 3, 2016

Garrett Jensen
Norweco, Inc.
PO Box 410
Norwalk, OH 44857

RE: Singulair[®] TNT-500 with UV disinfection

You applied to Oregon Department of Environmental Quality to list the above-referenced product as an approved Alternative Treatment Technology. DEQ reviewed your application plans, specifications, and other required exhibits for the Singulair[®] TNT-500 with UV disinfection. The system's design flow rating is 600 gallons per day and your application is for treatment standard 2.

You provided third party NSF/ANSI testing data from a certification organization whose accreditation is specific to onsite wastewater treatment products certifying the product complies with all applicable DEQ rules and regulations. DEQ reviewed these materials for compatibility with the standards and criteria found in Oregon Administrative Rule 340-071-0345. I am pleased to advise you that DEQ has found the following ATT system manufactured by Norweco, Inc. to meet the approval criteria for **Treatment Standard 2** when used as part of an onsite wastewater treatment system in Oregon:

➤ Singulair[®] TNT-500 with UV disinfection (600 GPD)

Norweco, Inc. is authorized to manufacture, market, and distribute these ATTs for use in single family dwellings and commercial facilities in Oregon so long as the following conditions are met:

1. You must manufacture the ATT in compliance with DEQ's rules, approved plans and design specifications. Alteration of the ATT system design that might affect system performance must be approved by an ANSI accredited, third-party testing and certification organization and DEQ.
2. The approved version(s) of the plans are labeled Singulair[®] TNT-500 and are dated August 2, 2016.
3. The ATT system must be preceded by a properly sized septic tank, dosing septic tank or followed by a properly sized dosing tank or pump vault approved for use in Oregon.

4. In the event of a failure of electrical or mechanical components critical to the treatment process, the control panel must lockout effluent pump operation to prevent untreated or partially treated effluent from discharging to the absorption area. An audible and visual alarm must activate in the event of electrical, mechanical equipment or hydraulic malfunction of the system.
5. You must train and certify maintenance providers on system maintenance for these ATTs. Individuals installing your system, and regulators in the county of installation, must be trained prior to installation of your products in Oregon, in accordance with the approved plan included in your application.
6. As the Manufacturer of these products, it is your responsibility to assure that each assembled ATT delivered to the construction site is watertight. Assurance must be achieved by periodic testing of the ATT products for watertightness at the manufacturing facility.
7. Service contracts and inspection / service visits must meet or exceed the requirements of OAR 340-071-0345(14).
8. Unless otherwise authorized by the Department, Norweco, Inc. must submit an annual manufacturer report. The report must include, but is not limited to:
 - a. A current list of each ATT sold in the State of Oregon for the reporting period, including the model number, serial number, and the property address where the ATT is located;
 - b. A current list of all maintenance providers certified by Norweco, Inc. and;
 - c. The material plan review fee in OAR 340-071-0140(5).
9. All other applicable rules and requirements within OAR 340-071 and 073 must be followed.

Pursuant to OAR 340-071-0345(2)(e), DEQ has the authority to remove ATTs from the approved list if DEQ determines that the requirements for approval are no longer satisfied, or if any of the following conditions have occurred:

- Ten percent or more of system under 10 years of age fail;
- The ATT does not produce effluent quality equal to or better than Treatment Standard 2 requirements, respectively, under normal operating conditions;
- The manufacturer fails to submit the annual report and annual compliance determination fee by the date specified by DEQ; or
- The manufacturer goes out of business.

Each ATT is only approved for use at locations where the top loading will not exceed the engineering design parameters. ATTs proposed for use at other locations require an engineering analysis of the potential top loading, and may require the preparation of site-specific plans and specifications.

DEQ's decision to list this ATT as approved does not constitute an endorsement of the product. Moreover, DEQ is not responsible for any situation which may result from improper use or misapplication of your product.

If you have any questions regarding this letter, please contact Randy Trox, randall.trox@state.or.us, or by phone at (541) 687-7338.

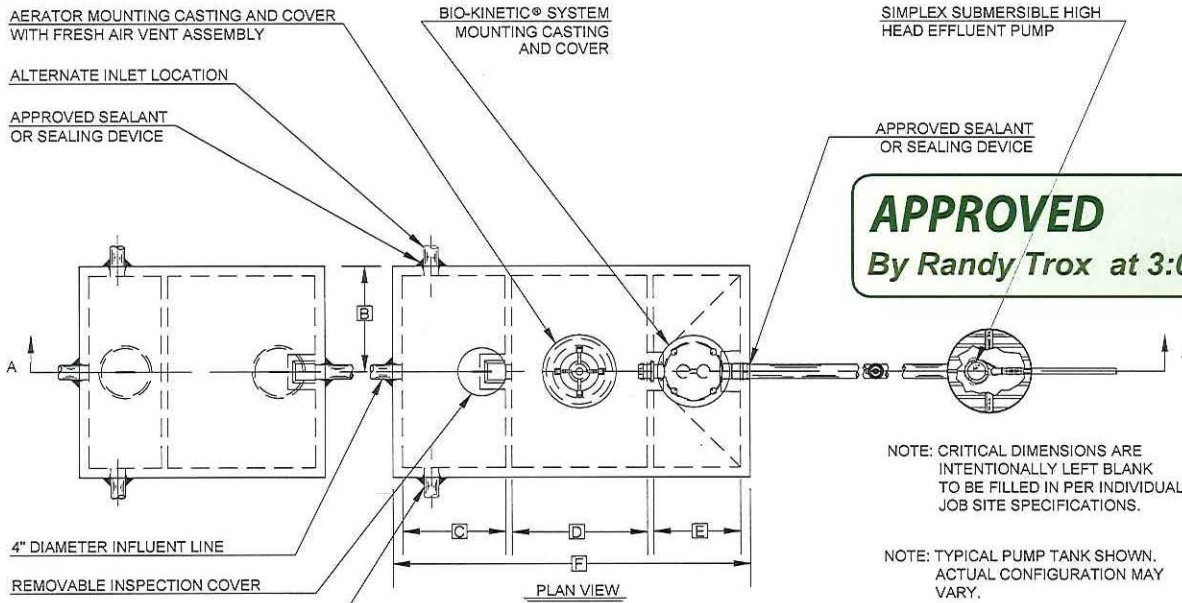
Sincerely,



David Belyea, Manager
Regional Environmental Solutions

Enclosures – approved plans

EC: All Contract County Offices
All DEQ Direct Service Offices



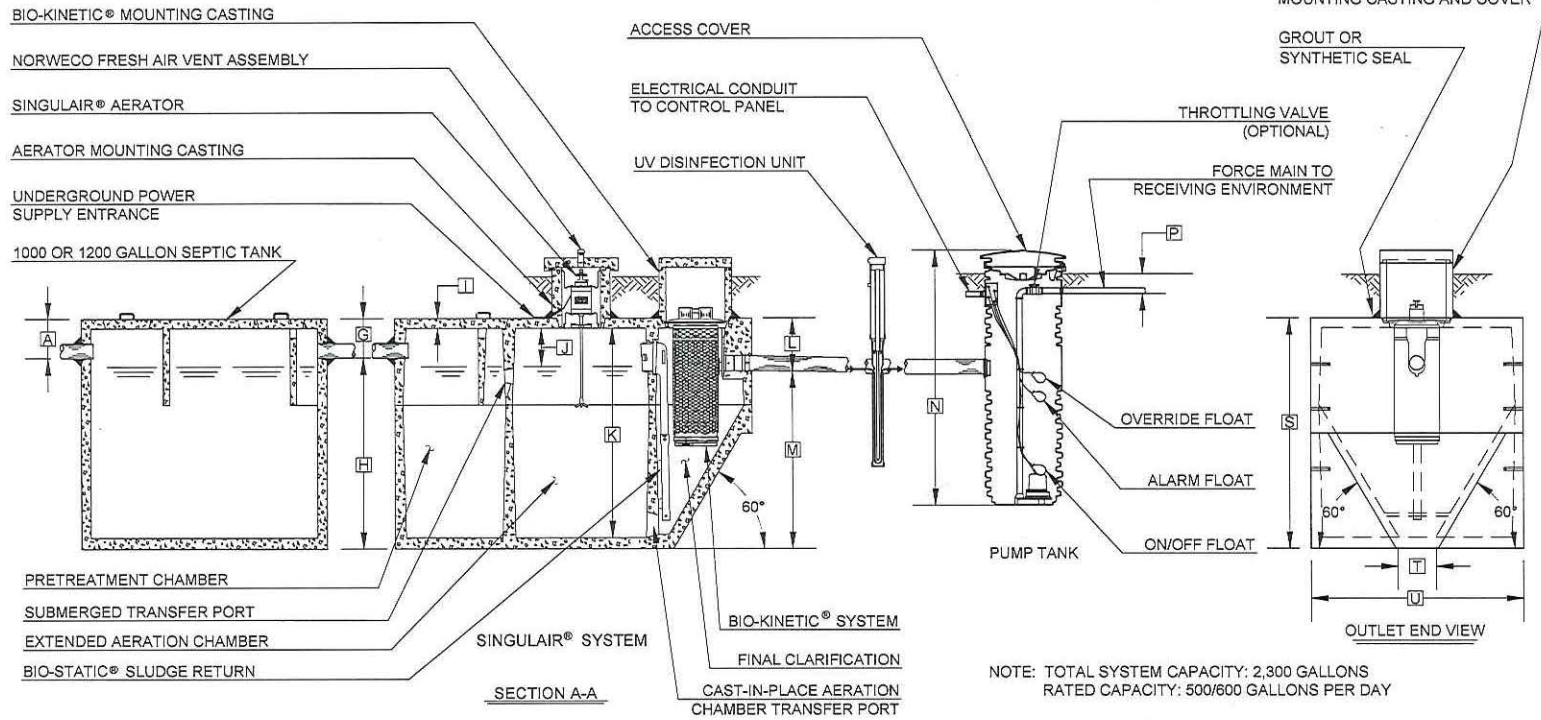
APPROVED
By Randy Trox at 3:03 pm, Aug 02, 2016

NOTE: CRITICAL DIMENSIONS ARE INTENTIONALLY LEFT BLANK TO BE FILLED IN PER INDIVIDUAL JOB SITE SPECIFICATIONS.

NOTE: TYPICAL PUMP TANK SHOWN. ACTUAL CONFIGURATION MAY VARY.

GENERAL NOTES:

- ① SINGULAIR® AERATOR, AS TESTED AND ACCEPTED BY NSF, OPERATING 60 MINUTES ON / 60 MINUTES OFF.
- ② FALL THROUGH SINGULAIR® PLANT FROM INLET INVERT TO OUTLET INVERT IS FOUR INCHES. INLET INVERT IS TWELVE INCHES BELOW TANK TOP.
- ③ ON DEEPER INSTALLATIONS, PRECAST RISERS MUST BE USED TO EXTEND AERATOR MOUNTING CASTING AND BIO-KINETIC® SYSTEM MOUNTING CASTING TO GRADE. INSPECTION COVER ON PRETREATMENT CHAMBER MUST BE DEVELOPED TO WITHIN TWELVE INCHES OF GRADE.
- ④ REMOVABLE COVERS ON RISERS WEIGH IN EXCESS OF SEVENTY-FIVE POUNDS EACH TO PREVENT UNAUTHORIZED ACCESS.
- ⑤ CHECK LOCAL REGULATIONS GOVERNING DETAILS OF EFFLUENT REUSE FOR SPRAY IRRIGATION SUCH AS EFFLUENT QUALITY, SURFACE AREA, PIPING ARRANGEMENT, SPRAY HEAD ANGLE, OPERATING TIMES, ETC.



NOTE: TOTAL SYSTEM CAPACITY: 2,300 GALLONS
RATED CAPACITY: 500/600 GALLONS PER DAY

PROJECT ENGINEER'S APPROVAL:
I (WE) HEREBY CERTIFY THAT THIS DRAWING HAS BEEN CHECKED AND IS APPROVED FOR USE IN CONFORMITY WITH THE CONTRACT DOCUMENTS.

DATE: _____
NAME: _____

CONTRACTOR'S CERTIFICATION:
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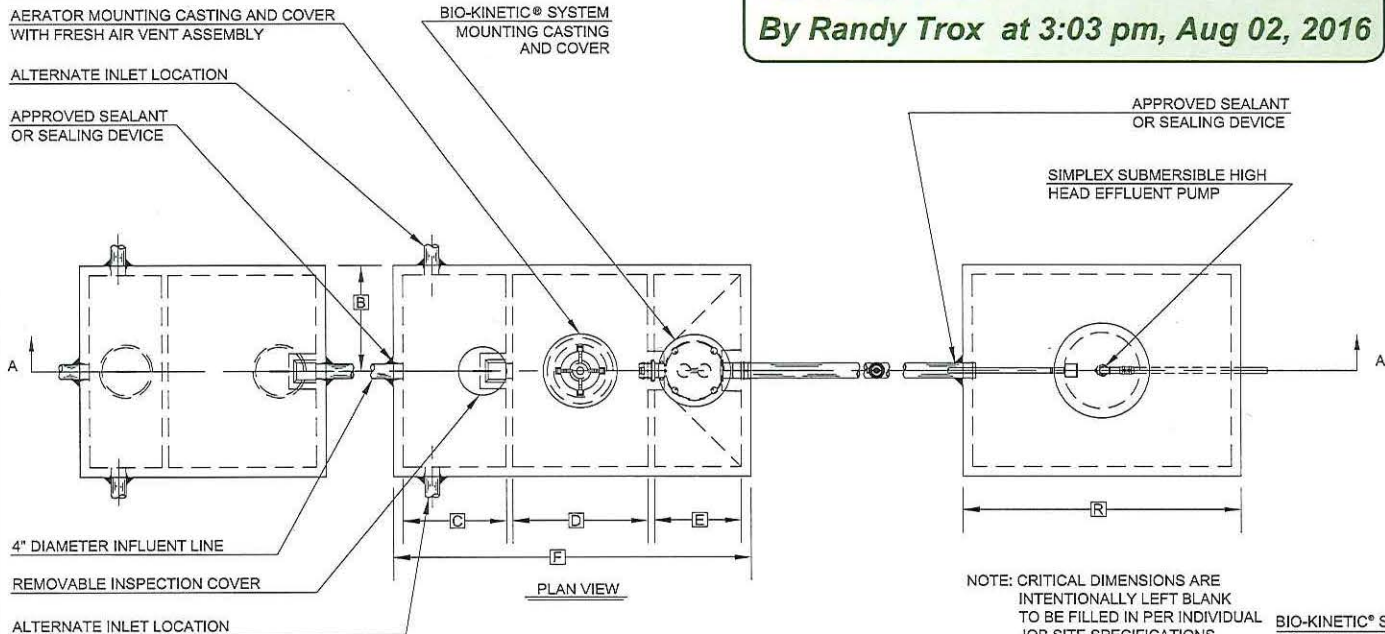
DATE: _____
NAME: _____

CRITICAL DIMENSIONS			
A	2'-9"	N	6'-7 1/4"
B	2'-8"	O	
C	3'-7"	P	
D	2'-3"	Q	
E	9'-3"	R	
F	1'-0"	S	6'-0"
G	5'-0"	T	1'-0"
H	0'-3"	U	5'-6"
I	1'-0"	V	
J	5'-6"	W	
K	1'-4"	X	
L	4'-8"	Y	
M		Z	

U.S. AND FOREIGN PATENTS PENDING	norweco	DATE: 8-28-2015	SCALE: NTS
	SINGULAIR® BIO-KINETIC® WASTEWATER TREATMENT SYSTEM MODEL TNT-500 WITH UV DISINFECTION SYSTEM, PLASTIC PUMP TANK AND SEPTIC TANK	APPROVED BY: JMM	DRAWN BY: NTS
	© MMXV		PC-5-7151
	<small>THIS DRAWING IS THE PROPERTY OF NORWECO. IT IS TO BE USED ONLY FOR THE PROJECT AND SITE SPECIFICALLY IDENTIFIED HEREON. NO REPRODUCTION OR TRANSMISSION OF THIS DRAWING IS PERMITTED WITHOUT THE WRITTEN PERMISSION FROM NORWECO.</small>		

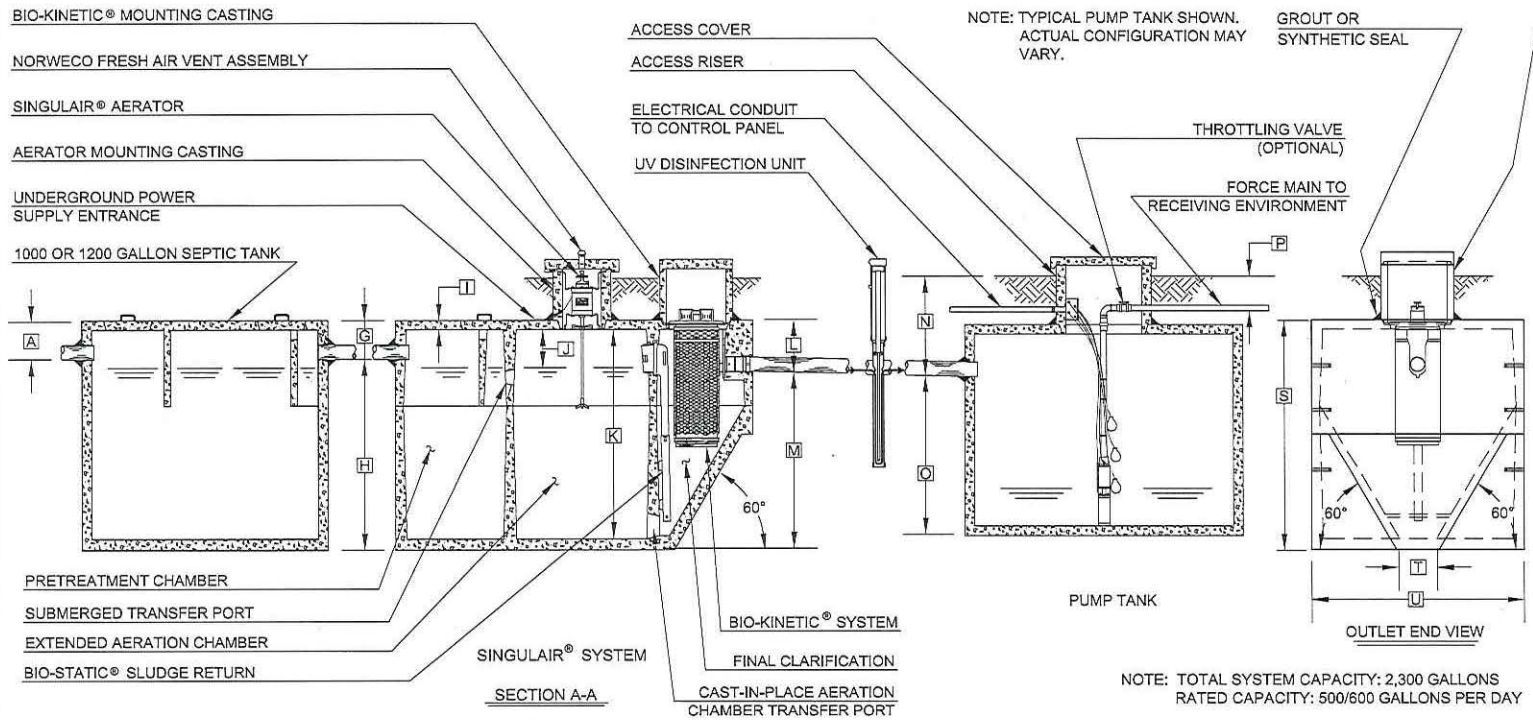
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CRITICAL DIMENSIONS

A	N
B	O
C	P
D	Q
E	R
F	S
G	T
H	U
I	V
J	W
K	X
L	Y
M	Z

U.S. AND FOREIGN PATENTS PENDING	norweco	DATE	REVISION
	SINGULAIR® BIO-KINETIC® WASTEWATER TREATMENT SYSTEM MODEL TNT-500 WITH UV DISINFECTION SYSTEM, PUMP TANK AND SEPTIC TANK	DRAWN BY	MT
		CHECKED BY	JMM
		DATE	8-28-2015
		SCALE	NTS
			PC-5-7149