filed electronically in docket office on 08/27/14

TENNESSEE WASTEWATER SYSTEMS, INC.

AN ADENUS UTILITY

August 27, 2014

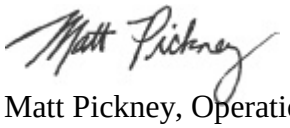
Honorable Herbert Hilliard
Chairman
Tennessee Regulatory Authority
502 Deaderick Street
4th Floor
Nashville, TN 37243

RE: Docket 14-00062

Dear Chairman Hilliard:

Tennessee Wastewater Systems, Inc. desires to amend its petition in docket 14-00062 to replace pages 36, 40, 41, 51 and 54 of our original filing with the attached 5 pages. This revision reflects corrections in the SOP application to match the number of residential units to be served, treatment system capacity and developer information with what was filed in our original petition.

Sincerely,



Matt Pickney, Operations Manager
Tennessee Wastewater Systems, Inc.

851 Aviation Parkway Smyrna, TN 37167
(615) 220-7200 Fax (615) 220-7207

STATE OPERATING PERMIT APPLICATION
CLOVERCROFT ACRES SD

WILLIAMSON COUNTY, TN

Revised 8-26-14

SEC, Inc.
SITE ENGINEERING CONSULTANTS
ENGINEERING • SURVEYING • LAND PLANNING
850 MIDDLE TENNESSEE BLVD • MURFREESBORO, TENNESSEE 37129
PHONE (615) 890-7901
WWW.SEC-CIVIL.COM

JAMES F. REED III
REGISTERED ENGINEER
AGRICULTURE
COMMERCE
No. 109038
STATE OF TENNESSEE

8-26-14

SEC Project No. 12040

Permit Number: SOP-_____

Facility Identification:		**Existing Permit No.**	
Facility Name:	**Clovercroft Acres Sd**	County:	**Williamson**
Facility Address or Location:	**Along Clovercroft Road just east of Tulloss Road**	Latitude:	**N 35° 55'20"**
		Longitude:	**W 86° 44'00"**

Name of Engineer for the project: **James F. Reed III P.E., R.L.S.**

Engineer address and phone number: **850 Middle Tennessee Blvd. 615-890-7901**

Name and distance to nearest receiving waters: **Mayes Creek splits the property**

If any other State or Federal Water/Wastewater Permits have been obtained for this site, list their permit numbers:
None

Name of company, utility, or governmental entity that will operate the permitted system: **Tennessee Wastewater**

Operator address: **849 Aviation Pkwy**
Smyrna TN 37167

Has the owner/operator filed for a Certificate of Convenience & Necessity (CCN), or an amended CCN, with the Tennessee Regulatory Authority (TRA) (may be required for collection systems and land application treatment systems)? ☒ Yes ☐ No ☐ N/A

If the applicant listed above does not yet own the facility/site or if the applicant will not be the operator, explain how and when the ownership will be transferred or describe the contractual arrangement and renewal terms of the contract for operations. **Tennessee Wastewater Systems Inc. will own the facility and site.**

Name of Public Water Provider: **Nolensville College Grove Utility District**
Charles Strasser 615-776-2511
ncgud@aol.com

List Standard Industrial Codes (SIC)/ North American Industrial Code (s) (NAIC) for proposed activity (these are located at http://www.census.gov/epcd/www/naicstab.htm) **4941 - water system, 4959 – Sewage treatment, 4971 - Irrigation**

Complete the following information explaining the entity type, number of design units, and daily design wastewater flow:

Entity Type	Number of Design Units		Flow (gpd)
☐ City, town or county	No. of connections:		
☒ Subdivision	No. of homes: **120**	Avg. No. bedrooms per home: **3-4 @ 300gpd/home**	**36,000**
☐ School	No. of students:	Size of cafeteria(s): No. of showers: **0**	
☐ Apartment	No. of units:	No. units with Washer/Dryer hookups: No. units without W/D hookups:	
☒ Commercial Business	No. of employees:	Type of business:	
☒ Industry	No. of employees:	Product(s) manufactured:	
☐ Resort	No. of units:		
☐ Camp	No. of hookups:		
☐ RV Park	No. of hookups:	No. of dump stations:	
☐ Car Wash	No. of bays:		
☐ Other			

Describe the type and frequency of activities that result in wastewater generation.

The treatment and land application of typical domestic waste.

Permit Number: SOP-_____

Engineering Report (required for collection systems and/or land application treatment systems):	☐ N/A
☒ Prepared in accordance with Rule 1200-4-2-.03 and Section 1.2 of the Tennessee Design Criteria (see website for more information)	
☒ Attached, or	
☐ Previously submitted and entitled: Approved? ☐ Yes. Date: ☐ No	

Wastewater Collection System:	☐ N/A
System type (i.e., gravity, low pressure, vacuum, combination, etc.): **Watertight effluent pressure collection system**	
System Description: **2", 3", and 4" diameter SDR 21 PVC pressure pipe and required fittings**	
Describe methods to prevent and respond to any bypass of treatment or discharges (i.e., power failures, equipment failures, heavy rains, etc.): **Each home has a minimum of 24-36 hours storage in the STEP tank. Heavy rains have a minimal impact on a watertight collection system. Small generators can be connected to the pump stations and treatment system as necessary during an extended power outage.**	
In the event of a system failure describe means of operator notification: **All pumps have redundancy & alarms.**	
List the **emergency** contact(s) (name/phone): **Brian Carter /615-220-7200**	
For low-pressure systems, who is responsible for maintenance of STEP/STEG tanks and pumps or grinder pumps (list all contact information)? **STEP tanks - Adenus Operations, 849 Aviation Parkway, Smyrna, TN 37167 (615) 220-7200**	
Approximate length of sewer (excluding private service lateral): **6,800 LF**	
Number/hp of lift stations: / Number/hp of lift pumps /	
Number/volume of low pressure and or grinder pump tanks **Proposed 1-5000 gal Recirc Tank, 1-3,000 gal Final Dose Tank** Number/volume septic tanks **120~1,500 STEP tanks**	
Attach a schematic of the collection system. ☒ Attached	
If this is a satellite sewer and you are tying in to another sewer system complete the following section, listing tie-in points to the sewer system and their location (attach additional sheets as necessary):	

Tie-in Point	Latitude (xx.xxxx°)	Longitude (xx.xxxx°)
None		

Land Application Treatment System:	☐ N/A
Type of Land Application Treatment System: ☒ Drip ☐ Spray ☐ Other, explain:	
Type of treatment facility preceding land application (recirculating media filters, lagoons, other, etc.): **Recirculating media filter**	
Attach a treatment schematic. ☒ Attached	
Describe methods to prevent and respond to any bypass of treatment or discharges (i.e., power failures, equipment failures, heavy rains, etc.): **The existing septic tank and proposed STEP tanks are sized for peak daily flow storage for the purpose of power failures and equipment failures.**	
For New or Modified Projects: **Clovercroft Acres SD** Name of Developer for the project: **Land Development.com Ardavan Afrakhteh**	
Developer address and phone number: **798 Old Hickory Blvd Brentwood, TN 37027 (865)-310-0896**	
For land application, list: ☒ Proposed acreage involved: **approx. 6.2 acres total** ☒Inches/week gpd/sq.ft loading rate to be applied: **4.13 acre with 2.07 acre reserve, approximately 0.2 gpd/sf loading rate**	
Is wastewater disinfection proposed?	
☐ Yes Describe land application area access:	
☒ No Describe how access to the land application area will be restricted **fence with access gates**	

3.0 Groundwater General Description

The attached USGS maps indicate the Clovercroft Acres Subdivision wastewater treatment area drainage flow path is to the southwest discharging into Mayes Creek watershed. The site is comprised of approximately 195 acres. The topography is mainly gently rolling to rolling slopes of 5 - 15 % with moderately steep slopes at the south of the property equating approximately 30% of the property. The property is bordered by Clovercroft Road to the north, to the west by agricultural property, Mayes Creek and large estate lots, and to the south and east by agricultural property. Roughly 50% of the site is wooded and the 7-10 acres for drip dispersal is mostly cleared with some minor underbrush.

The above mentioned property has typically been used for pasture land. Groundwater was used historically to provide water. At this time the area is served by Nolensville College Grove Utility District for water.

It is assumed tat the groundwater movement and surface flows are to the southwest toward Mayes Creek

See attached maps and USDA soils info under Section 2 Area of Review.

4.0 Population General Description

The majority of the Area of Review is agriculture land used primarily for pasture. See attached aerial map of property under Section 2 Area of Review.

5.0 Nature of Fluid

Clvercroft Acres Subdivision (~120 lots) will have a peak design discharge of approximately 36,000 gpd of domestic wastewater. The effluent quality is typical domestic residential treated wastewater that meets State Operating Permit limits.

7.0 Description of System

Treated wastewater approximately 36,000 gpd is pumped through arkal filter units and then distributed to HDPE drip lines with pressure compensating emitters. The drip lines are to be installed on 5-foot centers along the contours with the emitters spaced at 2-foot centers along the drip lines. Drip lines are plowed into the soils that have been approved by a certified soil scientist and placed at an approximate depth of 7-8 inches below the ground surface. Distribution of the treated wastewater is managed through solenoid valves and controlled by a programmable PLC.

8.0 Nature and Type of System

Treated wastewater from the subdivision will first be pumped from numerous water tight septic tanks at each lot. Grey water is pumped from the septic tank via a small diameter pressure collection line to a recirculating sand filters (RSF). The wastewater will then cycle through the RSF 5 times before discharging into the final dose tank. From the final dose tank, the treated wastewater is pumped through arkal filter units and then distributed through the drip dispersal lines within the approved soil site.