NORTH CAROLINA DEPARTMENT OF HEALTH AND HUMAN SERVICES
DIVISION OF PUBLIC HEALTH
ENVIRONMENTAL HEALTH SECTION
ON-SITE WASTEWATER BRANCH

INNOVATIVE WASTEWATER SYSTEM APPROVAL

Innovative Wastewater System Approval Number: IWWS-1995-3-R10

Issued To: EZflow, LP, a wholly owned subsidiary of Infiltrator Water Technologies, LLC
PO Box 768
Old Saybrook, CT 06475
www.ezflowlp.com

Contact: Jeanne Allen
800-221-4436

For: EZflow Dispersal Field Systems (formerly Houck Drainage Systems): EZ1003T (formerly HDS 2003 Triangular); EZ1003T-GEO; EZ1203T (formerly HDS 2012 Triangular); EZ1203T-GEO; EZ1203H (formerly HDS 2012 Horizontal); and EZ1203H-GEO

Approval Date:

October 10, 1995	
October 7, 1998	
April 18, 2002	
July 18, 2008	
March 1, 2011	Addition of 3 foot and 7 foot bundles
November 30, 2012	Elimination of Warranty Equivalency Factors and Reductions Exceeding 25%
August 7, 2015	Elimination of particle density specification, update trench levelness requirements, and change company name to Infiltrator Water Technologies, LLC*
February 8, 2019	Addition of Bed-in-fill system specifications**, shallow systems, and incorporation of ASTM F667 pipe standard
December 31, 2024	Updated for 18E and renewed for 2025
December 31, 2025	Renewed for 2026

*Prior approvals were issued to Infiltrator Systems, Inc. or predecessor companies
**Refer to Section VIII for Bed-in-fill siting, sizing, special site assessment, design, installation criteria, and permitting.

In accordance with G.S. 130A-343 and 15A NCAC 18E, Section .1700, an application by EZflow, LP, of Old Saybrook, CT (previously Ring Industrial Group) for a renewal of their gravelless trench system has been reviewed and found to meet the requirements of an innovative system when the following conditions are met.

I. General

A. Scope of this Innovative Approval
Use, design, and installation requirements for the EZflow Dispersal Field System.

B. The following EZflow Dispersal Field System trench models have been found to meet the standards of an innovative system:
- EZ1003T with 6-inch cover
- EZ1003T-GEO with 6-inch cover
- EZ1203T with 6-inch cover
- EZ1203T-GEO with 6-inch cover
- EZ1203H with 6-inch cover
- EZ1203H-GEO with 6-inch cover

II. System Description

A. Minimum pretreatment by septic tank as required in 15A NCAC 18E .0801.

B. EZflow expanded polystyrene aggregate particles (EPS) shall meet the following requirements:
1. EPS shall consist of three-dimensional rectangular shapes resembling capital E's placed back-to-back (also known as the double E) with void channels and surface area protuberances.
2. EPS shall range in size from 0.75 inches to 1.75 inches along any axis.

C. The EZflow Dispersal Field System units (also referred to as cylindrical units) shall meet the following general specifications:
1. EPS shall be contained in cylindrical high strength netting.
2. The physical and chemical properties of the netting shall be durable and resistive enough to retain the shape of the units and to withstand system installation, backfilling, corrosion, and loss of aggregate under intended use.
3. Cylindrical units shall be manufactured in 3-, 5-, 7-, and 10-foot long sections, +/- 2 inches.
4. The taper, or reduction in diameter, at each end of the cylindrical units shall not begin more than three inches from the point of enclosure, as measured along the linear axis of the unit.
5. Cylindrical units shall be able to withstand an AASHTO H-10 axle load of 16,000 pounds when covered with 12 inches of compacted soil and a shallow cover axle load of 4,000 pounds when covered with six inches of compacted soil without collapsing, fracturing or breaking when installed in a trench equaling the product configuration width.

D. Allowable configurations are described below:
1. EZ1003T (formerly HDS 2003 Triangular) shall meet the following description and specifications:
   a. The product shall be comprised of three 10-inch-diameter units 3-, 5-, 7-, or 10-feet long placed in a trench 24 inches wide.
   b. Two bottom cylinders containing aggregate only, with the netting tied off at both ends to prevent the escape of aggregate, are placed against opposite sides of the trench bottom (retaining a gap of approximately four inches between the bundles when placed in the 24-inch wide trench).

c. A third cylinder containing aggregate and a 4-inch diameter flexible plastic perforated pipe as is typically used in trench lines is centered on top of the bottom two bundles in the middle of the trench.
d. The pipe shall be certified as complying with ASTM F667, Standard Specification for 3 through 24 inch Corrugated Polyethylene Pipe and Fittings, and shall be in accordance with 15A NCAC 18E .0703(d).
e. The 4-inch corrugated pipe is surrounded by approximately 2.5 to three inches of the EZflow aggregate.
f. The netting for the central cylinder is tied off at both ends to the pipe. The pipe may be connected by an internal coupling device to allow continuous flow from one section to the next.
g. The pipe shall be connected by an internal coupling device to allow continuous connection from one section to the next.
h. The end-to-end gap distance between pipe containing cylinders, as measured from the straps fixing the netting to the pipe or from the face edges of aggregate on adjoining cylinders, shall be no greater than 3 inches.

2. EZ1003T-GEO Dispersal Field System consists of the same product specifications as the EZ1003T as described above with the addition of geotextile fabric prefabricated between the netting and aggregate spanning 180 degrees +/- 15 degrees along the top of each cylinder. The geotextile shall meet the minimum average value specifications described in Table I.
3. EZ1203T shall meet the following description and specifications:
   a. The product shall be comprised of three 12-inch-diameter units 3-, 5-, 7-, or 10-feet long placed in a trench 30 inches wide.
   b. Two bottom cylinders containing aggregate only, with the netting tied off at both ends to prevent the escape of aggregate, are placed against opposite sides of the trench bottom creating a gap of approximately five to six inches between the bundles.
   c. A third cylinder containing aggregate and a 4-inch diameter perforated flexible plastic pipe as is typically used in trench lines is centered on top of the bottom two bundles in the middle of the trench.
   d. The pipe shall be certified as complying with ASTM F667, Standard Specifications for 3 through 24 inch Corrugated Polyethylene Pipe and Fittings, and shall be in accordance with 15A NCAC 18E .0703(d).
   e. The 4-inch pipe is centered or slightly offset from center towards the top of the cylinder whereby four to six inches of aggregate is located between the bottom of the pipe and the bottom of the cylinder, and four to 1 ½ inches of aggregate is located between the top of the pipe and the top of the cylinder, respectively.
   f. The netting for the central cylinder is tied off at both ends to the pipe. The pipe may be connected by an internal coupling device to allow continuous flow from one section to the next.
   g. The end-to-end gap distance between pipe containing cylinders, as measured from the straps fixing the netting to the pipe or from the face edges of aggregate on adjoining cylinders, shall be no greater than 3 inches.
4. EZ1203T-GEO Dispersal Field System consists of the same product specifications as the EZ1203T as described above with the addition of geotextile fabric prefabricated between the netting and aggregate spanning 180 degrees +/- 15 degrees along the top of each

cylinder. The geotextile shall meet the minimum average value specifications described in Table I.

5. EZ1203H (formally HDS 2012 Horizontal) shall meet the following description and specifications:
   a. The product shall be comprised of three 12-inch-diameter units 3-, 5-, 7-, or 10-feet long placed side-by-side across the bottom of a 36-inch-wide trench.
   b. The outer units shall contain aggregate only, with the netting tied off at both ends to prevent the escape of aggregate.
   c. The central unit shall contain aggregate and a 4-inch-diameter perforated flexible plastic pipe as is typically used in trench lines.
   d. The pipe shall be certified as complying with ASTM F667, Standard Specification for 3 through 24 inch Corrugated Polyethylene Pipe and Fittings, and shall be in accordance with 15A NCAC 18E .0703(d).
   e. The netting for the central unit shall be tied off at both ends of the pipe.
   f. The 4-inch pipe shall be offset from center towards the top of the unit whereby five to six inches of aggregate is located between the bottom of the pipe and the bottom of the unit, and 1 ¼- to 2 ½- inches of aggregate is located between the top of the pipe and the top of the unit.
   g. The pipe shall be connected by an internal coupling device to allow continuous connection from one section to the next.
   h. The end-to-end gap distance between pipe containing cylinders, as measured from the straps fixing the netting to the pipe or from the face edges of aggregate on adjoining cylinders, shall be no greater than three inches.
6. EZ1203H-GEO Dispersal Field System consists of the same product specifications as the EZ1203H as described above with the addition of geotextile fabric prefabricated between the netting and aggregate spanning 180 degrees +/- 15 degrees along the top of each cylinder. The geotextile shall meet the minimum average value specifications described in Table I.

Table I – Minimum Geotextile Filter Wrap Specifications for EZ1203H-GEO

Property	Value
Unit Weight	0.5 ounces per square yard
Tensile Strength	Cross Direction: 40 N/2.54cm +/- 20% Machine Direction: 50 N/2.54cm +/- 20%
Air Permeability	775 cubic feet per minute +/- 20%

III. Siting Criteria *(Refer to Section VIII for Bed-in-fill siting criteria.)*

EZflow Dispersal Field Systems may be utilized on any site that one can use rock aggregate and pipe which meet the following criteria:

A. Sites which are classified as Suitable for a conventional wastewater system in accordance with 15A NCAC 18E .0509(a) through (c).

B. Sites which meet the criteria for new or existing fill in accordance with 15A NCAC 18E .0909. The provisions of 15A NCA 18E .0909 are applicable whenever any portion of the aggregate bundles

in an EZflow Dispersal Field System extends into fill material. There shall be no reduction in trench length compared to conventional gravel trench. This reference to fill material applies to the site fill and not the backfill placed between the trench and the cylinder sidewall.

C. The required vertical separation shall be measured from the trench bottom.

D. Where required by soil or site conditions and approved by the local health department (LHD), EZflow Dispersal Field Systems may be installed in lieu of conventional gravel trenches at depths deeper than 36 inches up to a maximum of 60-inches, as measured from the base of the trench. There shall be no reduction in trench length compared to a conventional gravel trench as computed per 15A NCAC 18E .0901(c) for EZflow Dispersal Field Systems if any part of the system is installed greater than three feet deep. Sizing for all models shall be based on the minimum excavated trench width in Table III, Section IV.C of this approval, without the application of an equivalency factor. Deep installation details shall be in accordance with the manufacturer's specifications and applicable federal and state safety procedures for underground excavations.

IV. Dispersal Field System Sizing *(Refer to Section VIII for Bed-in-fill sizing criteria.)*

A. The maximum long-term acceptance rate (LTAR) shall be as follows:

Table II

Textural Group		LTAR (gpd/sq ft)	
		Natural Soil	Saprolite
Soil/Group I (Sands)	Sands	0.8-1.0*	0.6-0.8
	Loamy Sand		0.5-0.7
Soil Group II (Coarse Loams)	Sandy Loam	0.6-0.8	0.4-0.6
	Loam		0.2-0.4
Soil Group III (Fine Loams)	Silt Loam	0.3-0.6	0.1-0.3
	Other Fine Loams		NA
Soil Group IV	Clays	0.1-0.4	NA

***** For sites where the LTAR exceeds 1.0 gpd/sq ft, use 1.0 gpd/sq ft.

B. The LTAR shall be based on the most hydraulically limiting naturally occurring soil horizon to a depth of one foot below the trench bottom.

C. To determine the minimum total trench bottom area (ft^2) required, divide the design daily flow by the applicable LTAR shown in Table II above. The minimum linear footage for EZflow Dispersal Field Systems shall be determined by dividing the total trench bottom area by the following equivalency factors:

Table III

Product Configuration	Excavated Trench Width	Equivalency Factor (SF/LF)

EZ1003T (2003 Triangular), EZ1003T-GEO	24-inch	3.0
EZ1203T (2012 Triangular), EZ1203T-GEO	30-inch	4.0
EZ1203H (2012 Horizontal), EZ 1203H-GEO	36-inch	4.0

Example:

Three bedroom residence with a design daily sewage flow of 360 gallons on a sandy clay loam (Group III) soil

Total computed trench bottom area is:
360 gpd/0.5 LTAR = 720 ft^2

The required linear footage for EZ1203H-GEO is:
720 ft^2/4.0 ft = 180 linear ft
Where 4.0 ft. is the equivalency factor for the EZ1203H-GEO system

D. The EZ1203H and EZ1203H-GEO Horizontal Dispersal Field Systems may be used in a bed system with the three cylindrical bundles placed in rows next to each other. The minimum area (without reduction or equivalency factor) for a bed system shall be determined as required in 15A NCAC 18E .0903.

E. The central cylinder of the EZ1203H and 1203H-GEO Horizontal Dispersal Field Systems which contains the off-set four-inch pipe may be used as an alternative to rock aggregate in a low-pressure pipe (LPP) system, sized equivalent to LPP systems as required in 15A NCAC 18E .0907. The single 12-inch diameter cylinder shall be installed within a 12 to 18-inch wide trench. The LPP small diameter pressure laterals (one to two inches) shall be placed within the four-inch pipe sleeve and otherwise designed in accordance with 15A NCAC 18E .0907. All orifices shall be drilled in the LPP laterals to face upward, except for a hole placed in the middle and a hole placed 25 percent from the distal end of each line, which shall face downward to allow for drainage. The minimum backfill requirement of six inches, as described below, shall also apply.

F. The available space requirements of 15A NCAC 18E .0508 shall be met, and this approved innovative system may be designated as the required repair system.

V. Special Site Evaluation *(Refer to Section VIII for Bed-in-fill special site evaluation criteria.)*

A special site evaluation may be required based on the proposed dispersal field. Refer to 15A NCAC 18E .0510.

VI. Design Criteria *(Refer to Section VIII for Bed-in-fill design criteria.)*

Refer to Siting Criteria in Section III and Installation information in Section VII for installation details.

VII. Installation *(Refer to Section VIII for Bed-in-fill installation criteria.)*

A. The EZflow Dispersal Field Systems shall be configured in accordance with Section II and installed in trenches according to the minimum dimensions in Table IV.

Table IV

Product Configuration	Minimum Trench Spacing (feet)	Trench Width (Inches)	*Minimum Trench Depth (inches)	♣Minimum Pipe Depth below Grade	♣Minimum Pipe Ht. Above Trench Bottom (inches)
EZ1003T, EZ1003T-GEO	7.5	24	23	11	10
EZ1203T, EZ1203T-GEO	9.0	30	25	12	11
EZ1203H, 1203H-GEO	9.0	36	18	12	5 to 6

* On sloping lots, minimum required trench depths may be greater.

♣ Measurements for pipe height are to the pipe invert or bottom of pipe.

B. A backfill barrier shall be placed over the EPS aggregate cylinders to prevent the infiltration of backfill material into the trench void spaces. The backfill barrier shall be 60-pound weight untreated building paper provided by the manufacturer or alternate with equal or better performance characteristics. An alternate backfill barrier shall be approved in writing by the manufacturer on a case-by-case basis. The barrier shall not be placed along the trench sidewalls below the pipe invert elevation. The barrier must be protected from becoming wet enough to tear until backfilling is completed. The EPS aggregate cylinders with the GEO suffix are prefabricated with a geotextile backfill barrier between the netting and aggregate. The GEO cylinders shall be oriented in the trench with the geotextile covering the top of the system. No additional backfill barrier material shall be required for GEO cylinders.

C. Native soil removed from the trench excavation may be used as backfill and shall be placed along the sidewalls in the EZflow Triangular Dispersal Field Systems to a minimum compacted (carefully walked in) height level with the center of the top EPS cylinder. Backfill shall be free of trash or debris. The area adjacent to the cylinders shall be free of large clods (eight inches or greater) that do not break apart during the walk in procedure. Special attention should be given when backfilling the Triangular Systems so as not to disturb the configuration. Vehicular traffic and excavation equipment should not travel over any uncovered dispersal field. The latest version of the manufacturer's installation procedures shall be followed.

D. EZflow Dispersal Field System trenches shall be installed level in all directions with a plus or minus one-half-inch tolerance from side-to-side and maximum fall in a single trench bottom not exceeding one-fourth inch in 10 feet end-to-end for any continuous contoured segment. Trenches shall follow the contour of the ground surface elevation (uniform depth). Trenches shall be constructed with all continuous adjoining 3, 5, 7 or 10-foot cylindrical bundles placed end-to-end, with the central bundle distribution pipe interconnected, without any dams, stepdowns, or other water stops.

E. The 10-foot cylindrical bundles shall be used to make up the majority of the line length, with the 3, 5, and 7 foot cylindrical bundles being used only at the distal end of the trench. A maximum of three 3, 5, or 7 foot bundles may be used in any one line length. Examples: A 65 foot trench would utilize 6-10 foot bundles and 1-5 foot bundle, not 13-5 foot bundles. A 71 foot trench would utilize 6-10 foot bundles, two 3 foot bundles and one five foot bundle.

F. EZflow Dispersal Field Systems installed on sloping sites may use distribution devices or step downs as described in 15A NCAC 18E .0901(g)(9) and (11) when it is necessary to change level line segments from upper to lower elevations. The minimum step-down height for the EZflow Triangular configurations may be reduced to be only up to the center of the pipe in the upstream trench.

G. Manufacturer's installation instructions for the EZflow Dispersal Field Systems shall be followed, except as required herein or by 15A NCAC 18E.

H. EZflow Dispersal Field Systems shall be installed by an installer authorized in writing by manufacturer or its authorized representative.

VIII. Bed Systems Installed in Fill (Bed-in-fill System)

A. For EZflow Dispersal Field Systems installed in a bed configuration in fill (Bed-in-fill), all Section VIII requirements apply.

B. Bed-in-fill Siting criteria
   1. A Bed-in-fill system may be installed on sites where at least the first 36 inches below the naturally occurring soil surface consist of sand or loamy sand (Soil Group I).
   2. A Bed-in-fill system shall only be used when the LHD determines that there is inadequate space to install a gravity flow trench-type system as required in 15A NCAC 18E .0909. The site shall have a uniform slope not exceeding two percent.
   3. No soil wetness condition shall exist within the first 12 inches below the naturally occurring soil surface. Artificial drainage shall not be used to meet this requirement.
   4. The horizontal setbacks of 15A NCAC 18E .0601 shall apply as measured from a point five feet from the nearest edge of the bed sidewall.
   5. Refer to Section II for product dimensions.
   6. The required vertical separation shall be measured from the bed bottom.

C. Bed-in-fill System sizing
   1. The maximum design daily flow shall not exceed 480 gpd.
   2. The LTAR shall not exceed 1.0 gpd/sq ft. For sites where the LTAR exceeds 1.0 gpd/sq ft, use 1.0 gpd/sq ft.
   3. The minimum required bed bottom area (sq ft) shall be determined based upon the design daily flow divided by the applicable LTAR. The resulting area value shall be increased by 50 percent in accordance with 15A NCAC 18E .0903.
   4. The minimum required bed bottom area shall contain EZflow bundles (placed on 3-foot centers) and the distribution device and piping such that their combined outside perimeter

area is equal to or greater than the minimum bed bottom area required under Section VIII(B)(3). EZflow bundles shall cover the bed bottom as described in Section VIII.D. The maximum spacing between opposing EZflow bundles adjacent to the distribution device and piping shall be six feet or in accordance with the manufacturer's installation instructions.

Example:
Three-bedroom residence with a design daily sewage flow of 360 gallons on a sand (Group I) soil having a LTAR equal to 1.0 gpd/sq ft

Total minimum required Bed-in-fill system bed bottom area is:

360 gpd/1.0 gpd/sq ft LTAR x 1.5 bed upsizing factor = 540 sq ft

For a center-fed EZflow bed system constructed using four laterals on each side of the bed, the area provided to satisfy the minimum required bed bottom area is calculated as follows:

EZflow area = 2 sides of bed x 4 laterals x 20 ft EZflow/lateral x 3 sq ft/ft = 480 sq ft

Distribution device area = 4 laterals x 3 ft wide/lateral x 6 ft long = 72 sq ft

Total EZflow and distribution device area provided = 522 sq ft

This example results in a bed with a footprint of 12 ft x 46 ft minus any buffer and toe slope, and requires 16 bundles and a distribution box with at least four outlets on each side. Six feet of separation is allowed in the center of the bed for the distribution box and piping.

5. No industrial process wastewater shall discharge to a Bed-in-fill system.
6. The available space requirements of 15A NCAC 18E .0508 shall be met, and an approved innovative system may be designated as the required replacement system.
7. The allowable product is EZ1203H-GEO.

D. Bed-in-fill Special Site Evaluation

A special site evaluation may be required based on the proposed dispersal field. Refer to 15A NCAC 18E .0510.

E. Bed-in-fill Installation
1. Fill material shall be sand or loamy sand (Group I soil), containing not more than 10 percent debris, and shall be approved prior to placement by the LHD.
2. Prior to fill placement, the site shall be void of a vegetative cover, organic litter, and debris.
3. Fill shall be placed in six-inch lifts, with each fill layer mixed with the underlying layer of natural soil or sandy fill material.
4. The sideslope of the fill shall not exceed a rise to run ratio of 1:3.
5. The system shall be constructed as an elongated berm with the long axis parallel to the

ground elevation contours of the slope.

6. The bottom of the bed shall be excavated level (± ¼") in all directions.
7. EZflow bundles shall be placed three feet on-center.
8. The edge of the bed shall be located 1 ½ feet from the centerline of the outermost EZflow bundle.
9. For each row of EZflow, the outer ends of the bundel shall extend at least to the end of the required bed footprint.
10. Allowable effluent distribution includes gravity flow, pressure-dosed gravity, or LPP.
11. For gravity and pressure-dosed gravity distribution, the following requirements apply:
    a. The bed bottom shall have a minimum separation of 24 inches from any soil wetness condition.
    b. The bed bottom shall have a minimum separation of 30 inches from any soil horizon unsuitable as to soil structure, clay mineralogy, organic soil, restrictive horizon, rock, or saprolite.
    c. The distribution device shall be placed in the center of the bed and is eligible for sizing credit if underlain by Group I fill material or 12 inches or less of gravel.
    d. The central cylinder of each EZflow line shall be connected to a distribution box or pressure manifold.
    e. A maximum of 16 EZflow bundles are allowed, with no more than eight on each side of the distribution device.
    f. The bed width shall be constructed in a multiple of three feet up to a maximum of 24 feet.
    g. Group I fill material shall be placed in the void spaces at the periphery of the bed and between the individual EZflow bundles level with the crown of the bundles but is not required over the top of the bundles.
    h. The final six inches of soil cover placed over the bed and side slopes shall be classified as a Group II or III soil.
12. For LPP distribution, the following requirements apply:
    a. The bed bottom shall have a minimum separation of 18 inches from any soil wetness condition.
    b. The bed width shall be constructed in a multiple of three feet up to a maximum of 24 feet.
    c. Laterals shall be installed in the central cylinder of each EZflow line per the manufacturer's installation instructions.
    d. Except as described herein, the provisions of 15A NCAC 18E .0907 shall apply.
    e. Group I fill material shall be placed in the void spaces at the periphery of the bed and between the individual EZflow bundles level with the crown of the bundles, but is not required over the top of the bundles.
    f. The final four inches of soil cover over the bed and side slopes shall be classified as Group II or III soil.
13. For approved Residential Wastewater Treatment Systems (RWTS) or approved innovative advanced pretreatment systems, the following requirements apply:
    a. The RWTS shall be approved in accordance with the provisions of 15A NCAC 18E, Section .1500.
    b. The bed bottom shall have a minimum separation of 18 inches from any soil wetness condition.

c. The bed system may utilize a gravity distribution as described in Section VIII.D.11.
d. If LPP distribution is utilized, the requirements of Section VIII.D.12 shall apply except that the bed bottom shall have a minimum separation of 12 inches from any soil wetness condition.

14. The 10-foot cylindrical bundles shall be used to make up the majority of the line length, with the 3-, 5-, and 7- foot cylindrical bundles being used only at the distal end of the line. A maximum of three 3-, 5-, or 7-foot bundles may be used in any one line length. Examples: A 65 foot trench would utilize 6-10 foot bundles and 1-5 foot bundle, not 13-5 foot bundles. A 71 foot trench would utilize 6-10 foot bundles, two 3 foot bundles and one five foot bundle.
15. Manufacturer's installation instructions for the applicable chamber system used in septic tank systems shall be followed except as required herein or 15A NCAC 18E.
16. All EZflow Dispersal Field Systems shall be installed by an installer authorized in writing by the manufacturer or its authorized representative.

IX. Operation, Maintenance, and Monitoring

The EZflow Dispersal Field Systems shall have a minimum classification as a Type IIIg system in accordance with 15A NCA 18E .1301(b), Table XXXII.

X. Responsibilities and Permitting

A. An owner may submit an application or Notice of Intent (NOI) to the local health department (LHD) requesting the use of this approved product or may submit a request in writing to the LHD to use this product on a site for which an improvement permit and/or construction authorization has been previously issued. The LHD shall confirm the installation of the approved chamber is contained within the approved soil area and meets site conditions. The LHD shall include the change in system on the operation permit.

B. Improvement Permits (IP) or Construction Authorizations (CA) issued by the LHD shall have a soil and site evaluation conducted either by the LHD, LSS, or AOWE. The NOI shall include a soil and site evaluation conducted by an LSS.

C. The IP, CA, and NOI shall contain all the conditions the site approval is based upon, including the proposed use of the Innovative system. The OP will include all the conditions specified in the IP and the CA. The Authorization to Operate (ATO) should include all the conditions specified in the NOI.

D. The LHD shall issue the OP after the following:
1. Field verification that the installation has been completed;
2. Receipt of written documentation from the authorized designer or PE that the system has been designed, installed, and is operating in accordance with the approved plans; and
3. All necessary legal documents have been completed, including the contract between the system owner and the authorized operator.

The LHD shall issue the OP for an (a2) and (a5) application after all necessary legal documents have been completed, including the contract between the system owner and the authorized operator if required.

The ATO shall be submitted to the LHD in accordance with G.S. 130A-336.1 and G.S. 130A-336.2.

XI. Repair of Systems

The provisions of 15A NCAC 18E .1306 shall apply to the use of EZflow Dispersal Field Systems for repairs to existing malfunctioning septic tank systems.

Approved by:_____Date:_____