pennsylvania
DEPARTMENT OF ENVIRONMENTAL PROTECTION

Southwest Regional Office
CLEAN WATER PROGRAM

Application Type	**Renewal**	Application No.	**PA0254941**
Wastewater Type	**Sewage**	APS ID	**1015714**
Facility Type	**SRSTP**	Authorization ID	**1313249**

NPDES PERMIT FACT SHEET
INDIVIDUAL SFTF/SRSTP

Applicant, Facility and Project Information

Applicant Name	**Crowe, John P.**	Facility Name	**Crowe SRSTP**
Applicant Address	306 Konter Road	Facility Address	306 Konter Road
	Coraopolis, PA 15108-9213		Coraopolis, PA 15108-9213
Applicant Contact	John Crowe	Facility Contact	***same as applicant***
Applicant Phone	(724) 417-5585	Facility Phone	***same as applicant***
Client ID	328444	Site ID	789590
SIC Code	8811	Municipality	Moon Township
SIC Description	Services - Private Households	County	Allegheny
Date Application Received	April 23, 2020	WQM Required	
Date Application Accepted		WQM App. No.	

Project Description: Renewal of an NPDES permit for a single residence sewage treatment plant.

Summary of Review

On April 23, 2020, DEP received an application from John and Jennifer Crowe to renew NPDES Permit PA0254941 for discharges of treated sewage from a single residence sewage treatment plant (SRSTP). The current NPDES permit was issued on October 6, 2015 with an effective date of November 1, 2015 and an expiration date of October 31, 2020. The application was received more than 180 days before the permit expiration date (i.e., by May 4, 2020), so the terms and conditions of the 2015 permit were administratively extended after the expiration date.

Water Quality Management (WQM) Permit No. 0215417 was issued on December 16, 2016 to authorize the construction and operation of the SRSTP. The system is an extended aeration system consisting of a Norweco Singulair Green 960-500/600 Bio-Kinetic Wastewater Treatment System with a Hydro-Kinetic Bio-Film Reactor and a Norweco Model AT 1500 ultraviolet (UV) disinfection system. The Bio-Kinetic Wastewater Treatment System is a watertight three-compartment high density polyethylene tank. The three chambers include a 250-gallon capacity pretreatment chamber for anaerobic treatment; a 600-gallon capacity aeration tank; and a 450-gallon capacity clarification chamber. The UV system is located after the Bio-Film Reactor. A Service Pro electrical control center controls all aspects of treatment plant operation including a time clock to control aeration cycles, alarm light, audible alarm, UV light failure, reset button, and power switch. The SRSTP was designed for a three-bedroom residence and is rated for 400 gpd. This facility is not eligible for a PAG-04 NPDES General Permit because the treatment units do not qualify for a General Permit under the design requirements of the current revision of the *Small Flow Treatment Facilities Manual* dated December 2, 2006 [Doc. No. 362-0300-002].

The NPDES and WQM permits were transferred from Ms. Cheryl Miller to John and Jennifer Crowe on February 8, 2017.

The SRSTP discharges to an unnamed (undocumented) tributary to Flaugherty Run designated for warm water fishes.

Per the Department's Onlot Alternate Technology Listings (see attached) and "[i]n accordance with Title 25, Chapter 73, Section 73.72, DEP classifies the Norweco Singulair 960 & Hydro-Kinetic Bio-Film Reactor (Norweco Singulair 960-HKBFR) combination for use as an alternate onlot sewage treatment system. This classification permits the use of the Norweco Singulair 960-HKBFR as a pair of treatment components used in series for the specific purposes of reducing CBOD5 and TSS

Approve	Deny	Signatures	Date
X		*Ryan C. Decker* Ryan C. Decker, P.E. / Environmental Engineer	June 22, 2021
X		*James Vanek* James Vanek, P.E. / Environmental Engineer	June 23, 2021

Summary of Review

in the sewage effluent prior to discharge to an absorption area. This system has demonstrated that it can produce an effluent which shall not exceed 10 mg/L CBOD5 and 10 mg/L TSS as monthly averages. With the use of an optional ultraviolet (uv) disinfection, the uv unit can also reduce fecal coliform concentrations to treatment levels which shall not exceed 200 cfu/100 ml on a monthly average basis. The inclusion of a uv disinfection unit is at the discretion of the homeowner."

25 Pa. Code § 71.64(d) requires that "Small flow treatment facilities and their appurtenances shall meet applicable design, installation, operation and other standards established for small flow treatment facilities by the Department under sections 202 and 207 of The Clean Streams Law (35 P. S. §§ 691.202 and 691.207) and shall obtain a Clean Streams Law permit and if there is a discharge to surface water, a National Pollutant Discharge Elimination System permit, prior to construction and operation."

The Department has established design standards for SRSTPs (as a subset of SFTFs) in the aforementioned *Small Flow Treatment Facilities Manual*, which requires SFTFs to be "capable of continuously producing a suitable effluent (< 10 mg/L BOD5 and Total Suspended Solids (TSS)) without causing water pollution or public health hazards."

Pursuant to § 71.64(d), the *Small Flow Treatment Facilities Manual*, the Department's evaluation of the performance characteristics of the Norweco Singulair 960 & Hydro-Kinetic Bio-Film Reactor combination in the Onlot Alternate Technology Listings, and the use of ultraviolet light for disinfection, annual average technology-based effluent limits of 10 mg/L will be imposed for BOD5 and TSS[1] and fecal coliform limits of 200/100mL annual average and 1,000/100mL instantaneous maximum (IMAX) will be imposed at Outfall 001. DEP's current policy would not impose a fecal coliform IMAX limit on an SRSTP discharge, but DEP does not find cause to remove the instantaneous maximum limit according to allowances in federal anti-backsliding regulations (40 CFR § 122.44(l)). There have been no facility alterations, new information, or new regulations that justify the removal of the fecal coliform IMAX limits to align the permit with current policy.

TRC limits were imposed erroneously in the 2017 amended NPDES permit but will be removed from the renewed permit. Since the applicant uses UV light for disinfection, no requirements for total residual chlorine are needed. SRSTPs with UV disinfection systems do not require UV intensity or transmittance monitoring in the permit. The removal of TRC limits is consistent with anti-backsliding requirements.

In accordance with DEP's procedure for converting average monthly effluent limitations to IMAX effluent limitations—described in Chapter 2, Section C of the Department's *Technical Guidance for the Development and Specification of Effluent Limitations and Other Permit Conditions in NPDES Permits,* October 1, 1997 (Doc. No. 362-0400-001)—IMAX limits of 20 mg/L will be imposed for BOD5 and TSS.

Effluent limits of 6.0 (instantaneous minimum) and 9.0 (instantaneous maximum) for pH are imposed pursuant to 25 Pa. Code § 92a.47(a)(7) and 25 Pa. Code § 95.2(1).

Flow monitoring will be required pursuant to 25 Pa. Code § 92a.61(b). The existing average flow limit of 0.0004 MGD will remain in the permit. DEP's current policy is not to impose flow limits on SRSTP discharges, but DEP does not find cause to remove the flow limits according to the allowances in federal anti-backsliding regulations (40 CFR § 122.44(l)). There have been no facility alterations, new information, or new regulations that justify the removal of the fecal coliform IMAX limits to align the permit with current policy.

Sewage discharges with design flows <2,000 gpd do not require monitoring for Total Nitrogen and Total Phosphorus.

The aquatic life use of the receiving stream is impaired by organic enrichment and siltation. There is no Total Maximum Daily Load (TMDL) to address the impairment of the receiving stream. If a TMDL is developed to address the impairment, then the NPDES permit will be updated to be consistent with that TMDL. In the meantime, the existing BOD5 and TSS limits will control the SRSTP's organic and sediment load contributions to the watershed.

Effluent limits for Outfall 001 (summarized later in this Fact Sheet) are consistent with the Department's *Standard Operating Procedure for Clean Water Program New and Reissuance Small Flow Treatment Facility Individual NPDES Permit Applications* (SOP No. BCW-PMT-003). The sampling frequencies for all parameters other than flow will be 1/year using grab samples in accordance with the self-monitoring requirements for sewage discharges in Chapter 6, Table 6-3 of the Department's *Technical*

[1] The average monthly limits are imposed as annual average limits because the statistical basis for the limits must align with the 1/year sampling frequency.

Summary of Review

Guidance for the Development and Specification of Effluent Limitations and Other Permit Conditions in NPDES Permits. Flow must be estimated 1/year.

Public Participation

DEP will publish notice of the receipt of the NPDES permit application and a tentative decision to issue the individual NPDES permit in the *Pennsylvania Bulletin* in accordance with 25 Pa. Code § 92a.82. Upon publication in the *Pennsylvania Bulletin*, DEP will accept written comments from interested persons for a 30-day period (which may be extended for one additional 15-day period at DEP's discretion), which will be considered in making a final decision on the application. Any person may request or petition for a public hearing with respect to the application. A public hearing may be held if DEP determines that there is significant public interest in holding a hearing. If a hearing is held, notice of the hearing will be published in the *Pennsylvania Bulletin* at least 30 days prior to the hearing and in at least one newspaper of general circulation within the geographical area of the discharge.

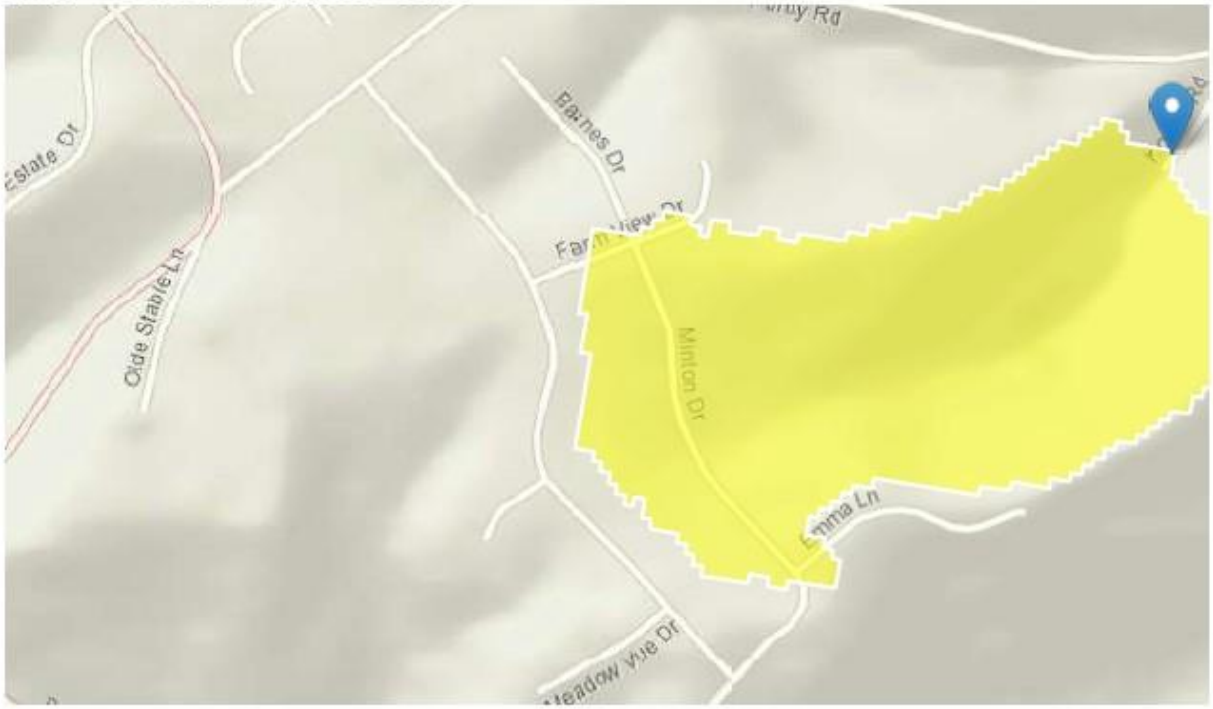
Discharge, Receiving Waters and Water Supply Information			
Outfall No.	001	Design Flow (MGD)	0.0004
Latitude	40° 32' 38.77"	Longitude	-80° 13' 5.16"
Quad Name	Ambridge	Quad Code	1404
Wastewater Description:	Treated sewage effluent		
Receiving Waters	Unnamed tributary to Flaugherty Run (WWF)	Stream Code	UNT to 36640
NHD Com ID	99683690	RMI	1.22
Drainage Area		Yield (cfs/mi^2)	
Q_{7-10} Flow (cfs)		Q_{7-10} Basis	
Elevation (ft)		Slope (ft/ft)	
Watershed No.	20-G	Chapter 93 Class.	WWF
Existing Use		Existing Use Qualifier	
Exceptions to Use		Exceptions to Criteria	
Assessment Status	Impaired		
Cause(s) of Impairment	Organic Enrichment, Siltation		
Source(s) of Impairment	Highway/Road/Bridge Runoff (Non-Construction Related), Rural (Residential Areas)		
TMDL Status		Name	
Nearest Downstream Public Water Supply Intake	Center Township Water Authority (PWS ID 5040007)		
PWS Waters	Ohio River	Flow at Intake (cfs)	5,880
PWS RMI	953.6	Distance from Outfall (mi)	

Changes Since Last Permit Issuance: None

Other Comments:

StreamStats Report

Region ID: PA
Workspace ID: PA20210617225554110000
Clicked Point (Latitude, Longitude): 40.54353, -80.22230
Time: 2021-06-17 18:56:11 -0400



Basin Characteristics

Parameter Code	Parameter Description	Value	Unit
DRNAREA	Area that drains to a point on a stream	0.0806	square miles
ELEV	Mean Basin Elevation	1019	feet

Low-Flow Statistics Parameters [Low Flow Region 4]

Parameter Code	Parameter Name	Value	Units	Min Limit	Max Limit
DRNAREA	Drainage Area	0.0806	square miles	2.26	1400

Parameter Code	Parameter Name	Value	Units	Min Limit	Max Limit
ELEV	Mean Basin Elevation	1019	feet	1050	2580

Low-Flow Statistics Disclaimers [Low Flow Region 4]

One or more of the parameters is outside the suggested range. Estimates were extrapolated with unknown errors

Low-Flow Statistics Flow Report [Low Flow Region 4]

Statistic	Value	Unit
7 Day 2 Year Low Flow	0.00139	ft^3/s
30 Day 2 Year Low Flow	0.00299	ft^3/s
7 Day 10 Year Low Flow	0.000336	ft^3/s
30 Day 10 Year Low Flow	0.000856	ft^3/s
90 Day 10 Year Low Flow	0.00191	ft^3/s

Low-Flow Statistics Citations

Stuckey, M.H.,2006, Low-flow, base-flow, and mean-flow regression equations for Pennsylvania streams: U.S. Geological Survey Scientific Investigations Report 2006-5130, 84 p. (http://pubs.usgs.gov/sir/2006/5130/)

Application Version: 4.5.3
StreamStats Services Version: 1.2.22
NSS Services Version: 2.1.2

Proposed Effluent Limitations and Monitoring Requirements

The limitations and monitoring requirements specified below are proposed for the draft permit, and reflect the most stringent limitations amongst technology, water quality and BPJ. Instantaneous Maximum (IMAX) limits are determined using multipliers of 2 (conventional pollutants) or 2.5 (toxic pollutants). Sample frequencies and types are derived from the "NPDES Permit Writer's Manual" (362-0400-001), SOPs and/or BPJ.

Outfall 001, Effective Period: Permit Effective Date through Permit Expiration Date.

Parameter	Effluent Limitations						Monitoring Requirements	
	Mass Units (lbs/day) (1)		Concentrations (mg/L)				Minimum (2) Measurement Frequency	Required Sample Type
	Average Monthly	Daily Maximum	Instant. Minimum	Annual Average	Daily Maximum	Instant. Maximum		
Flow (MGD)	0.0004	Report	XXX	XXX	XXX	XXX	1/year	Estimate
pH (S.U.)	XXX	XXX	6.0	XXX	XXX	9.0	1/year	Grab
Carbonaceous Biochemical Oxygen Demand (CBOD5)	XXX	XXX	XXX	10.0	XXX	20.0	1/year	Grab
Total Suspended Solids	XXX	XXX	XXX	10.0	XXX	20.0	1/year	Grab
Fecal Coliform (No./100 ml)	XXX	XXX	XXX	200	XXX	1000	1/year	Grab

Compliance Sampling Location: at Outfall 001

Other Comments:

Commonwealth of Pennsylvania
Department of Environmental Protection (DEP)
Bureau of Point and Non-Point Source Management
Harrisburg, PA

Issued to: Norweco, Inc.
220 Republic Street
Norwalk, OH 44857
Phone: 1-800-NORWECO or (419) 668-4471
www.norweco.com

Technology: Norweco Singulair 960 & Hydro-Kinetic Bio-Film Reactor (Norweco Singulair 960-HKBFR)

Classification Type: Alternate technology (A2015-0028-0001)

Classification Date: December 10, 2015

In accordance with Title 25, Chapter 73, Section 73.72, DEP classifies the Norweco Singulair 960 & Hydro-Kinetic Bio-Film Reactor (Norweco Singulair 960-HKBFR) combination for use as an alternate onlot sewage treatment system. This classification permits the use of the Norweco Singulair 960-HKBFR as a pair of treatment components used in series for the specific purposes of reducing $CBOD_5$ and TSS in the sewage effluent prior to discharge to an absorption area. This system has demonstrated that it can produce an effluent which shall not exceed 10 mg/L $CBOD_5$ and 10 mg/L TSS as monthly averages. With the use of an optional ultraviolet (uv) disinfection, the uv unit can also reduce fecal coliform concentrations to treatment levels which shall not exceed 200 cfu/100 ml on a monthly average basis. The inclusion of a uv disinfection unit is at the discretion of the homeowner.

Note: Norweco Singulair Green 960 are referred in this document as Norweco Singulair 960.

I. Technology Description

The Singulair wastewater treatment system comprises a pair of treatment tanks used in series. The first tank in the treatment process is the Singulair 960 tank. The second tank in the treatment process is the HKBFR.

The first compartment of the Singulair 960 tank is known as the pretreatment chamber. This chamber physically removes easily separable solids in the wastewater. The second compartment of the Singulair 960 tank utilizes extended aeration and activated sludge to achieve treatment. At the aeration chamber, infused air provides oxygen for the aerobic bacteria on a timed run cycle. The third and last chamber of the Singulair 960 tank houses the Bio-Kinetic® System. The Bio-Kinetic System serves the treatment tank for clarification and flow equalization.

The second treatment tank in the series is the HKBFR. The HKBFR receives flow equalized liquid from the clarifier by entering the influent chamber. As liquid travels up through the proprietary attached growth media, further reduction of organic matter shall take place. The

effects of gravity cause solids to settle to the bottom of the tank. After passing through the filtration media for final polishing, the treated sewage is then discharged from the HKBFR filter through the outlet tee.

II. Design Requirements

A. Location: The Norweco Singulair 960-HKBFR may be installed for the treatment of domestic strength wastewater (as defined by Table 1 of Miscellaneous Data to be used in Conjunction with PA DEP listings) serving a new construction or as a repair.

B. Size: The Norweco Singulair 960 units with the following base model numbers itemized in Section II.B are acceptable for use. All acceptable Norweco Singulair 960 units must bear the seal of the NSF Standard No. 40 or equivalent. Tank materials are either concrete or high density polyethyelene (HDPE). The HDPE tanks are labelled as Green in the tank model.

- Singulair 960, 960LP, 960OP
- Singulair Green 960

LP = low profile; OP = one piece tank

C. Construction:

(1) The Norweco Singulair 960-HKBFR units must be installed according to the manufacturer's installation manual and by a Norweco trained and authorized installer.

(2) Aerobic treatment tanks must be in compliance with Section 73.32.

(3) For flow rates ranging 400 gpd to 800 gpd, the treatment sequence must consist of (a) a Norweco Singulair 960 aerobic treatment tank, (b) a HKBFR, (c) a dosing tank, and (d) an absorption area described by Section II.E.

(4) For flow rates ranging 801 gpd to 1500 gpd, the treatment sequence must consist of (a) an external pretreatment tank supplied by Norweco, (b) a Norweco Singulair 960 aerobic treatment tank, (c) two HKBFRs, (d) a dosing tank, and (e) an absorption area described by Section II.E.

The size of the pretreatment tank for given flow rates are shown in Table 1.

Table 1
Pretreatment Tank Capacity for Given Flow Rate

Flow Rate (gpd)	Pretreatment Tank Capacity (gal)
1000	1000
1250	1250
1500	1500

(5) Depending upon the flow rate, multiple HKBFRs shall be placed in parallel. Each HKBFR can treat up to 800 gpd.

(6) Both the Norweco Singulair 960 and the HKBFR units must be watertight and all outlets properly sealed against liquid and solid infiltration and exfiltration.

(7) A single Bio-Static sludge return assembly is installed in 500 gpd, 750 gpd, and 1000 gpd flow rates. Two Bio-Static sludge return assemblies are required to be installed for 1250 gpd and 1500 gpd flow rates.

(8) The HKBFR and dosing tank combined vessel has a maximum capacity of 800 gpd.

(9) Sites that utilize water softeners must plumb the water softener backwash into the treatment tank.

(10) The Norweco telemetry system is recommended unless the subject site does not have telemetry capabilities.

D. Installation:

(1) An onsite preconstruction conference attended by the sewage enforcement officer, designer, installer, and the property owner prior to construction is recommended.

(2) Tanks should not be installed in saturated clay, areas with a high water table, bogs, swampy areas, landfills where the soil is soft or wet, areas containing expansive soils or soils with an ultimate bearing capacity of less than 1,500 pounds/ft^2.

(3) Tank Leveling Pad- To insure that the tank bottom will be bearing the weight evenly, all tanks should be set on a four inch thick pad of gravel, sand, or fine crushed stone. The pad should be installed and leveled by the contractor before delivery and setting of any tank takes place. The tank pad must be leveled to within 1/4" from side to side and end to end.

(4) For the Singulair Green 960 tank, anti-flotation measures may be necessary where there is a high water table. Consult with the manufacturer's Shallow Burial and Reduced Soil Density Hold Down Requirements shown as Table 2 to determine the amount of additional hold down weight. Soil densities that fall between the interval listed in Table 2 can be rounded down to the lower soil density interval. Additional hold down weight can be made possible by using either a pair of concrete beams placed at the base of the excavation or 0.60 CCA treated lumber beams.

Table 2
Singulair Green 960
Shallow Burial and Reduced Soil Density Hold Down Requirements

Soil Density (lbs/ft^3)	80	90	100	110	120	130
Fill Over Tank (inches)	Additional Weight Required (lbs)					
6	6,915	5,935	4,956	3,976	2,996	2,017
8	6,091	5,008	3,926	2,843	1,761	678
10	5,267	4,081	2,896	1,710	525	*
12	4,443	3,155	1,866	578	*	*
14	3,619	2,228	836	*	*	*
16	2,796	1,301	Standard Installation	*	*	*
18	1,972	374	*	*	*	*
20	1,148	*	*	*	*	*
22	324	*	*	*	*	*
24	*	*	*	*	*	*

Notes: * Hold Down Weight Not Required

(5) For the Green HKBFR, anti-flotation measures may be necessary where there is a high water table. Consult with the manufacturer's Shallow Burial and Reduced Soil Density Hold Down Requirements shown as Table 3 to determine the amount of additional hold down weight. Soil densities that fall between the interval listed in Table 3 can be rounded down to the lower soil density interval. Additional hold down weight can be made possible by using either a pair of concrete beams placed at the base of the excavation or 0.60 CCA treated lumber beams.

Table 3
Green Hydro-Kinetic Bio-Film Reactor
Shallow Burial and Reduced Soil Density Hold Down Requirements

Soil Density (lbs/ft^3)	80	90	100	110	120	130
Fill Over Tank (inches)	Additional Weight Required (lbs)					
6	2,725	2,377	2,029	1,681	1,333	985
8	2,382	1,991	1,600	1,209	818	428
10	2,038	1,605	1,171	737	304	*
12	1,695	1,218	742	265	*	*
14	1,352	832	313	*	*	*
16	1,009	446	Standard Installation			*
18	665	*	*	*	*	*
20	322	*	*	*	*	*
22	*	*	*	*	*	*
24	*	*	*	*	*	*

Notes: * Hold Down Weight Not Required

(6) The appropriate backfill materials for the treatment tanks should be pea gravel such as AASHTO #8 aggregate until the inlet line is covered. The remaining excavation cover may be fine, loose earth.

(7) For the Norweco Singulair tank, a fresh air vent is designed into the perimeter of the access cover above the Singulair aerator. The perimeter vent supplies fresh air to the aerator, which is drawn through the aspirator and into the wastewater. Finished landscaping should be maintained three to six inches below the top of the vented access cover and graded to drain runoff away from the cover. Do not obstruct the vented access cover or allow plants, shrubbery, mulch, or landscaping of any type to restrict the flow of air to the perimeter vent.

(8) For the pretreatment chamber, the inspection cover must project a minimum of 3 to 6 inches above finished grade. Pretreatment chamber access covers should never be vented and should be sealed with mastic.

(9) The top of the covers of the treatment tanks must project a minimum of 6" above finished grade. Individual precast Bio-Kinetic system riser castings may be added in 12" increments when necessary.

E. Use of the Component/System and Siting Requirements:

(1) For final treatment and disposal for an onlot system described in Chapter 73 other than IRSIS, up to a 40 percent reduction in the size of the absorption area is allowed where the percolation rate is in the range of 3 to 60 minutes per inch (min/in), inclusive. However, where the percolation rate is in the range of 61 to 180 min/in, inclusive, no reduction in absorption area sizing is permitted. Sufficient soil profiles must be conducted to ensure that a minimum of 20 inches of suitable soil is present under the entire area proposed for the absorption area.

(2) On sites exhibiting limiting zones greater than or equal to 20 inches from the mineral soil surface, the absorption area must be designed in accordance with the alternate at-grade absorption area. The soil profile must show that there is a minimum of 20 inches of suitable soil between the bottom of the proposed area and the limiting zone. Where the percolation rate is in the range of 3 to 60 minutes per inch, inclusive, up to a 40% reduction in the size of the absorption area is allowed. However, where the percolation rate is in the range of 61 to 180 min/in, inclusive, no reduction in absorption area sizing is permitted.

(3) On sites exhibiting limiting zones less than 20 inches from the mineral soil surface, the absorption area must be designed in accordance with the specifications described by the alternate shallow limiting zone at-grade absorption area. Ultraviolet (uv) disinfection is optional.

(4) The absorption area may also be designed in accordance with the specifications described by the alternate drip irrigation.

(5) Where sizing reductions are proposed, they are not cumulative. No additional sizing reduction is allowed for use of either an aerobic tank or infiltration chambers.

(6) If sizing reductions are proposed, where the system is used to serve a new dwelling, the soil profile evaluations and percolation testing must document that sufficient area is available for installation of a full-sized absorption area (prior to the calculation of the 40% reduction).

(7) For repairs, system sizing must be maximized up to the square footage of a full-sized system.

(8) The system must be designed to take full advantage of the slope to move effluent out from under the absorption area and downgradient with the laterals placed parallel to the contour.

III. Minimum Maintenance Standards

A. Service Contract: A service contract with a Service Provider qualified to maintain the Norweco treatment system is required. The service contract will require a minimum of two (2) site visits annually.

B. The manufacturer's representative must meet with the property owner within one (1) month of system start-up and/or occupancy of the dwelling and with the local agency's SEO upon request, to explain the operation and maintenance of the system and provide written instructions to the property owner that includes:
   (1) Norweco's Owner's Manual;
   (2) Instructions on the operation and maintenance of the system;
   (3) The locations of all parts of the system;
   (4) A commitment that the manufacturer's service provider will investigate and troubleshoot system problems;
   (5) Contact information for the manufacturer, the manufacturers' representatives, and manufacturer's service provider;

C. Warranty: The manufacturer must provide a minimum 2-year warranty on all defects due to materials or workmanship.

D. Inspection:

(1) Inspection of the area around the soil absorption area every 6 months by the homeowner to ensure that there is no ponding of effluent or downgradient seepage.

(2) The service provider shall inspect at least the following items at an interval frequency recommended by the manufacturer's requirements:

a) Inspect aerobic tanks for structural integrity of the tank, inlets, and outlet baffles, buoyed solids retainer, pumps, siphons, and electrical connections.

b) Inspect HKBFR tanks, dosing tanks, and lift pump tanks for structural integrity of the tank, inlet and outlet baffles, solids retainer, pumps, siphons, and electrical connections;

c) Ensure that the pumping system is operational.

(3) The service provider shall inspect and pump excess solids in accordance with the manufacturer's requirements.

IV. Permitting Requirements

A. A sewage enforcement officer who has successfully completed an appropriate Department sponsored training course that included the absorption area that this listing will discharge may independently review the design and issue the permit for components under this listing. All other proposals under this listing must be submitted to the Department for review and comment.

B. The sewage enforcement officer shall include on both the *Application for An Onlot Sewage Disposal* permit (Part III, Section 1) and the permit, the classification number itemized in the Classification Type of this listing.

V. Planning Requirements

Not applicable