



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

November 24, 2015

Mike Catanzaro
Delta Environmental
8263 Florida Blvd
Denham Springs, LA 70726

RE: Ecopod® E-50N-1M1060

You applied to Oregon Department of Environmental Quality to list the above-referenced product as an approved Alternative Treatment Technology. DEQ has reviewed your application plans, specifications, and other required exhibits for the Ecopod N E-50N-1M1060 with ultraviolet light disinfection. The system's design flow rating is 500 gallons per day and your application was submitted to list as a treatment standard 2 system.

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 has 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 Delta Environmental, Inc. to meet the approval criteria for **Treatment Standard 2** when used as part of an onsite wastewater treatment system in Oregon:

➤ Ecopod® E-50N-1M1060 (500 GPD)

Delta Environmental, 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. The ATT must be manufactured in compliance with DEQ's rules and the plans and design specifications approved by DEQ. 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 Ecopod® E-50N-1M1060 and are dated November 23, 2015.
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, Delta Environmental, 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 Delta Environmental, 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, trox.randall@deq.state.or.us, or by phone at (541) 687-7338.

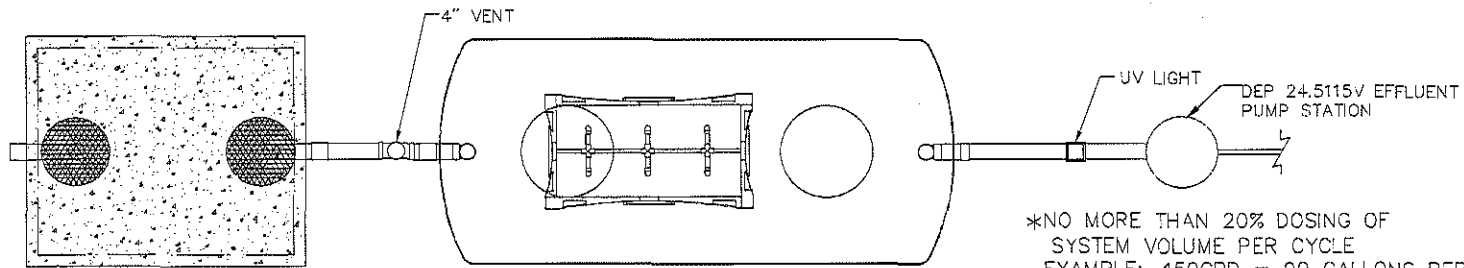
Sincerely,



David Belyea, Manager
Regional Environmental Solutions

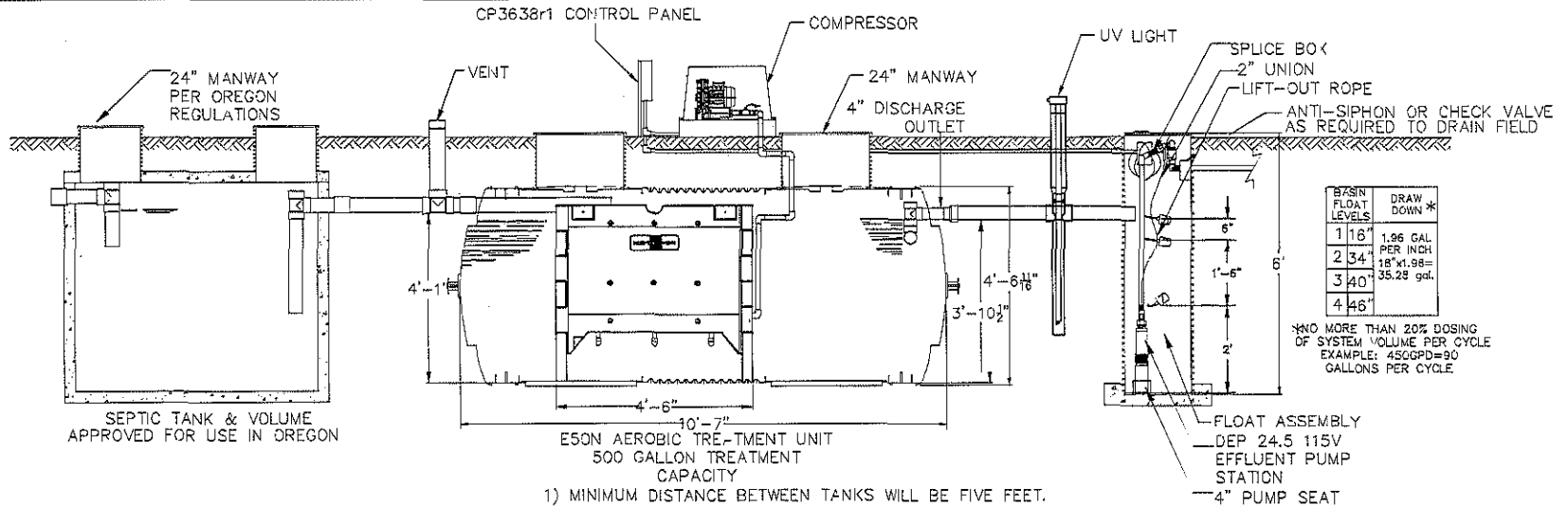
Enclosures – approved plans

EC: All Contract County Offices
All DEQ Direct Service Offices



*NO MORE THAN 20% DOSING OF SYSTEM VOLUME PER CYCLE
EXAMPLE: 450GPD = 90 GALLONS PER CYCLE.

APPROVED
By Randy Trox at 1:31 pm, Nov 23, 2015



BASIN FLOAT LEVELS	DRAW DOWN *
1 18"	1.96 GAL PER INCH
2 34"	18" x 1.96 = 35.28 gal.
3 40"	
4 46"	

*NO MORE THAN 20% DOSING OF SYSTEM VOLUME PER CYCLE
EXAMPLE: 450GPD=90 GALLONS PER CYCLE.

- 1) MINIMUM DISTANCE BETWEEN TANKS WILL BE FIVE FEET.
- 2) ELEVATION LEVEL BETWEEN TANKS PER OREGON STATE RULES.
- 3) PIPE SIZE TO DRAIN FIELD PER OREGON STATE REGULATIONS.
- 4) ALL TANKS MUST BE WATERTIGHT.
- 5) UV AS SHOWN ON DRAWING WHEN FECAL REDUCTION BELOW 400mg/L IS REQUIRED.

*NOTE: ALL EXTERIOR PIPE SIZE AS PER OREGON REQUIREMENTS

*NOTE: THE VOLUME OF THE SEPTIC TANK WILL BE AS REQUIRED IN OAR 340-071-220(3)

CONFIGURATION 1

23

REV.	DATE	REVISION DESCRIPTION	BY

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Delta Environmental™
Pentair Water

DELTA ECOPOD-N 500 GPD UNIT
W/ OREGON APPROVED SEPTIC TANK &
DEP24.5115V HIGH HEAD PUMP STATION

PLOT SCALE
NTS

DRAWING NUMBER
DEP248A E50N

DRAWN BY
L. CUTRER

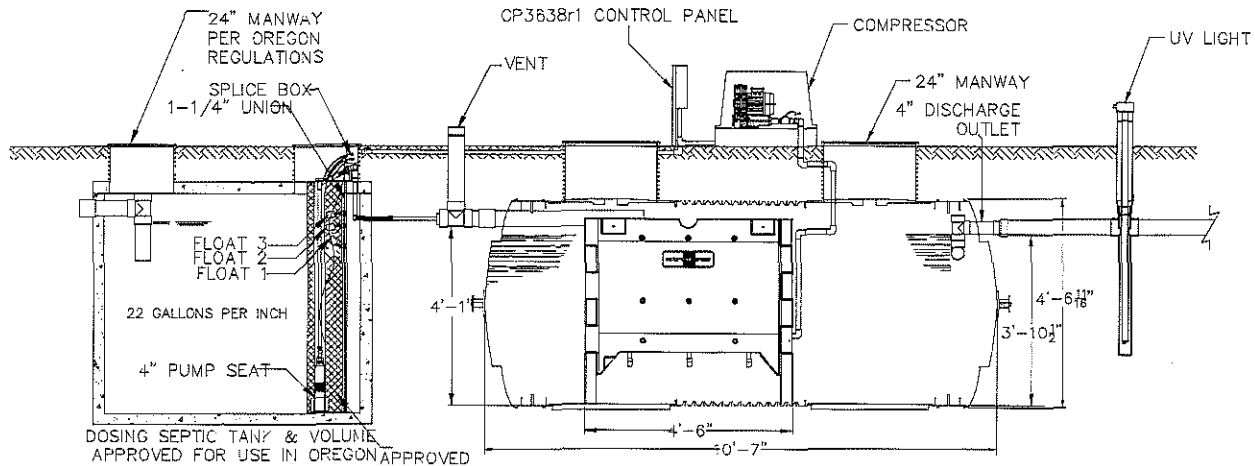
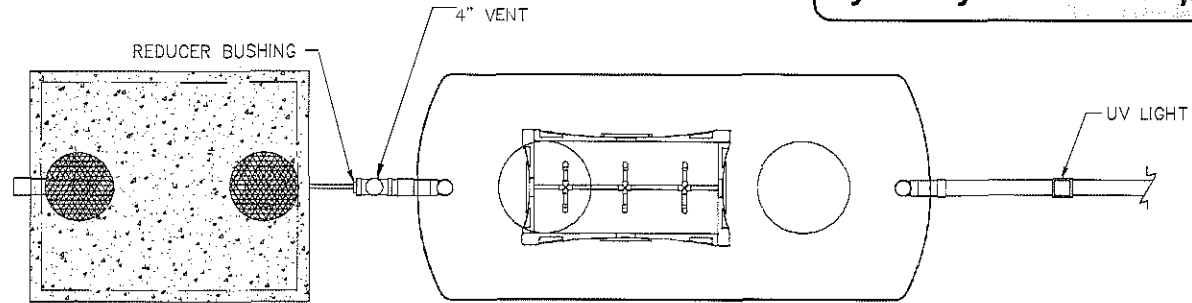
DATE
04/24/15

SHEET
OF
1 OF 1

REV
A

APPROVED

By Randy Trox at 1:32 pm, Nov 23, 2015




DOSING SEPTIC TANK & VOLUME APPROVED FOR USE IN OREGON FILTER PUMP VAULT

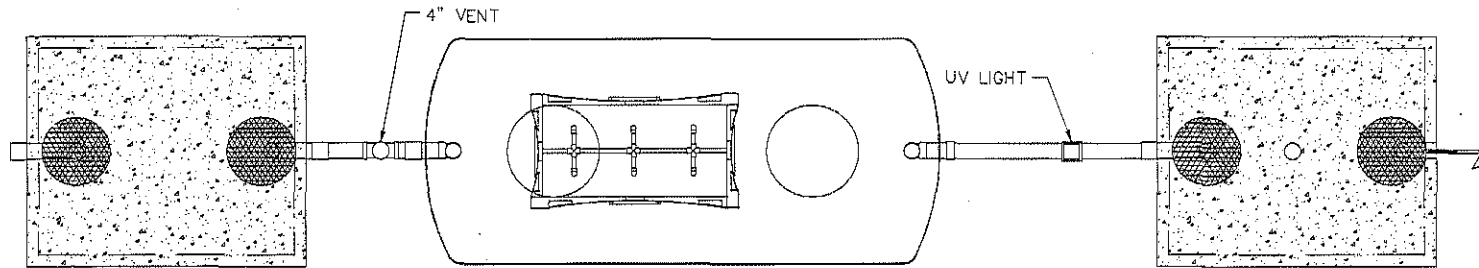
E50N AEROBIC TREATMENT UNIT
500 GALLON TREATMENT CAPACITY

- *NOTE: 5' MINIMUM SEPARATION DISTANCE BETWEEN TANKS
- *NOTE: THE VOLUME OF THE SEPTIC TANK WILL BE AS REQUIRED ON OAR 340-071-220 (3)
- *NOTE: ALL EXTERIOR PIPE SIZE AS PER OREGON REQUIREMENTS

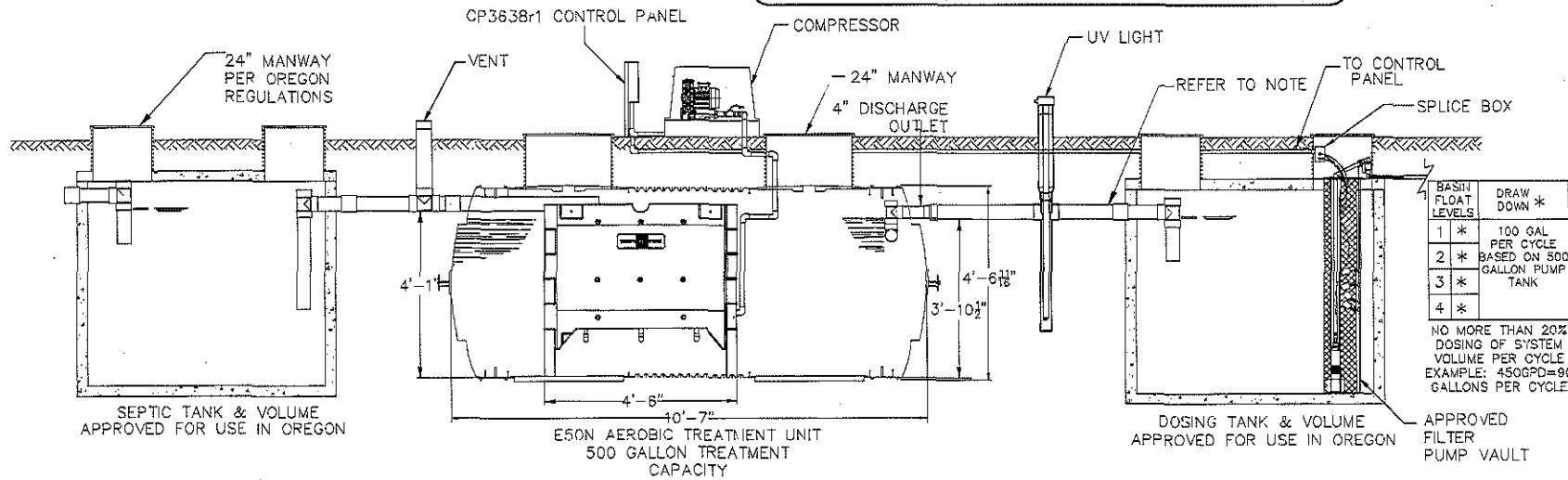
CONFIGURATION 2

24

					DELTA ECOPOD 500 GPD UNIT W/ OREGON APPROVED DOSING SEPTIC TANK				
REV.	DATE	REVISION DESCRIPTION	BY	PLOT SCALE	DRAWING NUMBER	DRAWN BY	DATE	SHEET OF	REV
				NTS	DEP248A E50N	L.CUTRER	04/24/15	1 OF 1	A
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APPROVED
 By Randy Trox at 1:32 pm, Nov 23, 2015



BASIN FLOAT LEVELS	DRAW DOWN *
1 *	100 GAL PER CYCLE
2 *	BASED ON 500 GALLON PUMP TANK
3 *	
4 *	

NO MORE THAN 20% DOSING OF SYSTEM VOLUME PER CYCLE
 EXAMPLE: 450GPD=90 GALLONS PER CYCLE

PUMP CHART			
PUMP	ELEVATION	MAX. DISTANCE	MIN. PIPE SIZE
1/2 HP	30'	500'	min 3"
1 HP	100'	1000'	min 3"

- *NOTE: ALL EXTERIOR PIPE SIZE AS PER OREGON REQUIREMENTS
- *NOTE: THE VOLUME OF THE DOSING TANK WILL BE AS REQUIRED IN OAR 340-071-220(6)
- *NOTE: THE VOLUME OF THE SEPTIC TANK WILL BE AS REQUIRED IN OAR 340-071-220(3)
- *NOTE: 5' MINIMUM SEPARATION DISTANCE BETWEEN TANKS

CONFIGURATION 3

25

REV.	DATE	REVISION DESCRIPTION	BY



DELTA ECOPOD 500 GPD UNIT
 W/ OREGON APPROVED SEPTIC TANK &
 DOSING TANK

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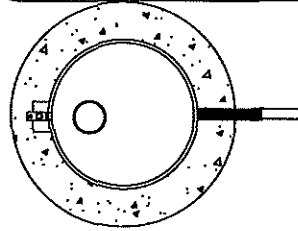
PLOT SCALE NTS	DRAWING NUMBER DEP248A E50N	DRAWN BY L.CUTRER	DATE 04/24/15	SHEET OF 1 OF 1	REV A
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APPROVED

By Randy Trox at 1:32 pm, Nov 23, 2015

INSTALLATION

1. The basin is plastic pipe with sealed fiberglass bottom and optional anti-floatation ring to prevent basin from floating up in high water conditions. Do not leave basin in unfilled hole without concrete as ground water or rain may float basin up breaking inlet, discharge and electrical conduit connections.
2. A 3' dia. x 4" thk. concrete base is required for anchoring purposes.

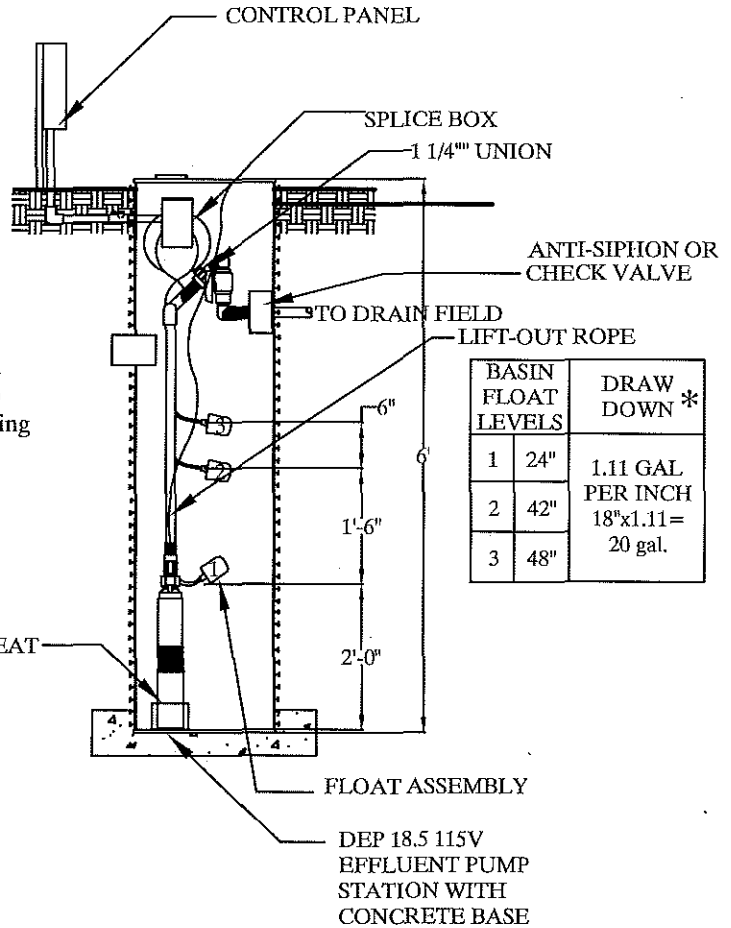


ELECTRICAL ASSEMBLY

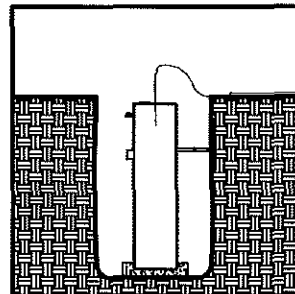
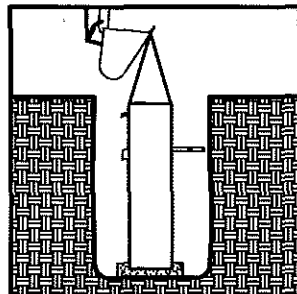
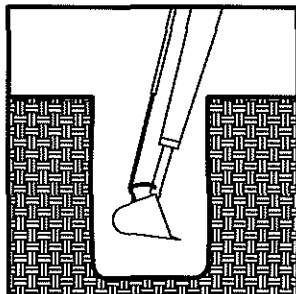
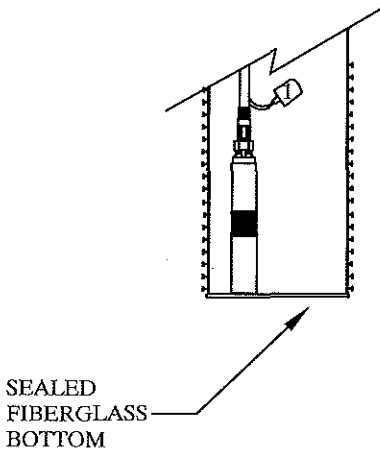
1. Connect level control and pump power cords to junction box as shown in diagram. Make certain all compression fittings are tight.
2. Install control panel.
3. Run wires to control panel through conduit and connect cords coming into connection box. Mark or trace each incoming wire so that it can be connected to the proper cord.

STARTING SYSTEM

1. Open ball valve.
2. Run water into basin until the "ON" level control starts the pump. Allow pump to operate until sump level drops, deactivating "OFF" level control, stopping pump.



BASIN FLOAT LEVELS		DRAW DOWN *
1	24"	1.11 GAL PER INCH 18"x1.11= 20 gal.
2	42"	
3	48"	



					DEP 18.5 115V EFFLUENT PUMP STATION INSTALLATION PROCEDURE				
REV.	DATE	REVISION DESCRIPTION	BY		PLOT SCALE	DRAWING NUMBER	DRAWN BY	DATE	SHEET OF
				NTS	DEP287-18.5EP	D. WRIGHT	09/04/12	1 OF 1	A

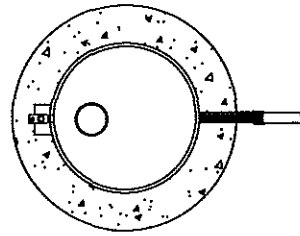
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APPROVED

By Randy Trox at 1:32 pm, Nov 23, 2015

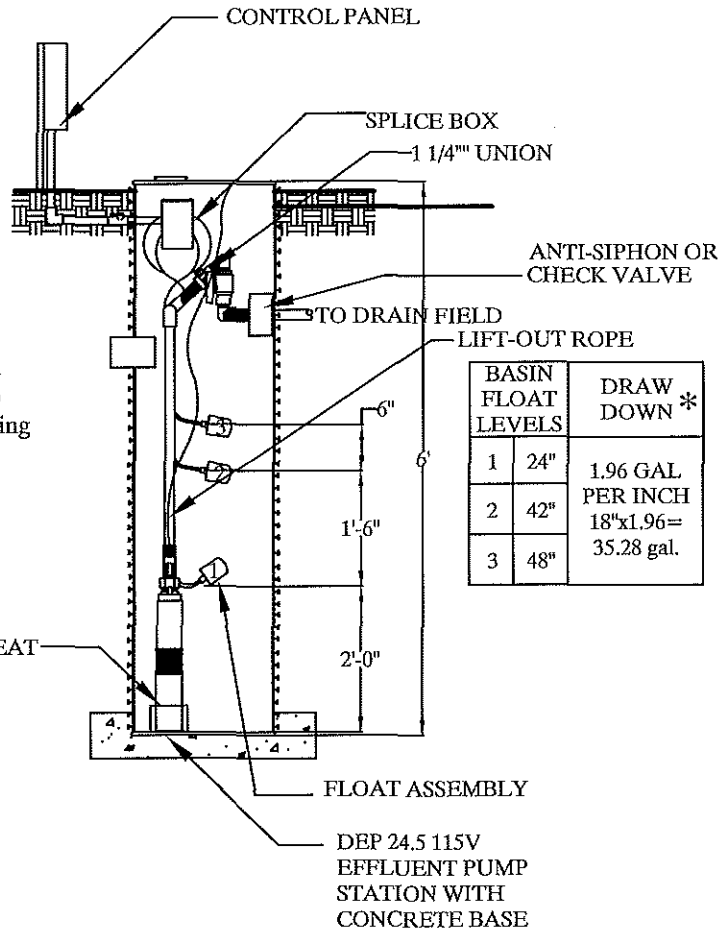
INSTALLATION

1. The basin is plastic pipe with sealed fiberglass bottom and optional anti-floatation ring to prevent basin from floating up in high water conditions. Do not leave basin in unfilled hole without concrete as ground water or rain may float basin up breaking inlet, discharge and electrical conduit connections.
2. A 3' dia. x 4" thk. concrete base is required for anchoring purposes.



ELECTRICAL ASSEMBLY

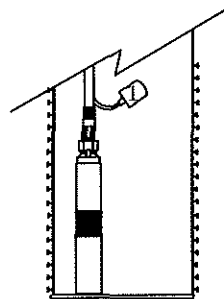
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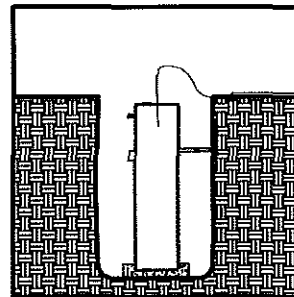
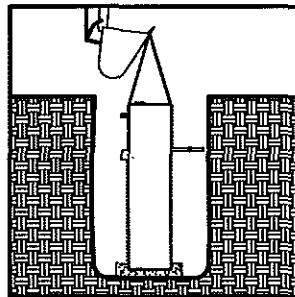
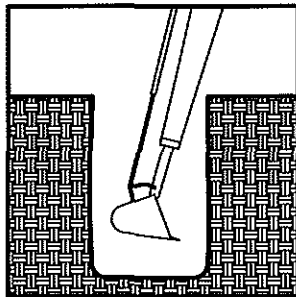
STARTING SYSTEM

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BASIN FLOAT LEVELS		DRAW DOWN *
1	24"	1.96 GAL
2	42"	PER INCH
3	48"	18"x1.96= 35.28 gal.



SEALED FIBERGLASS BOTTOM

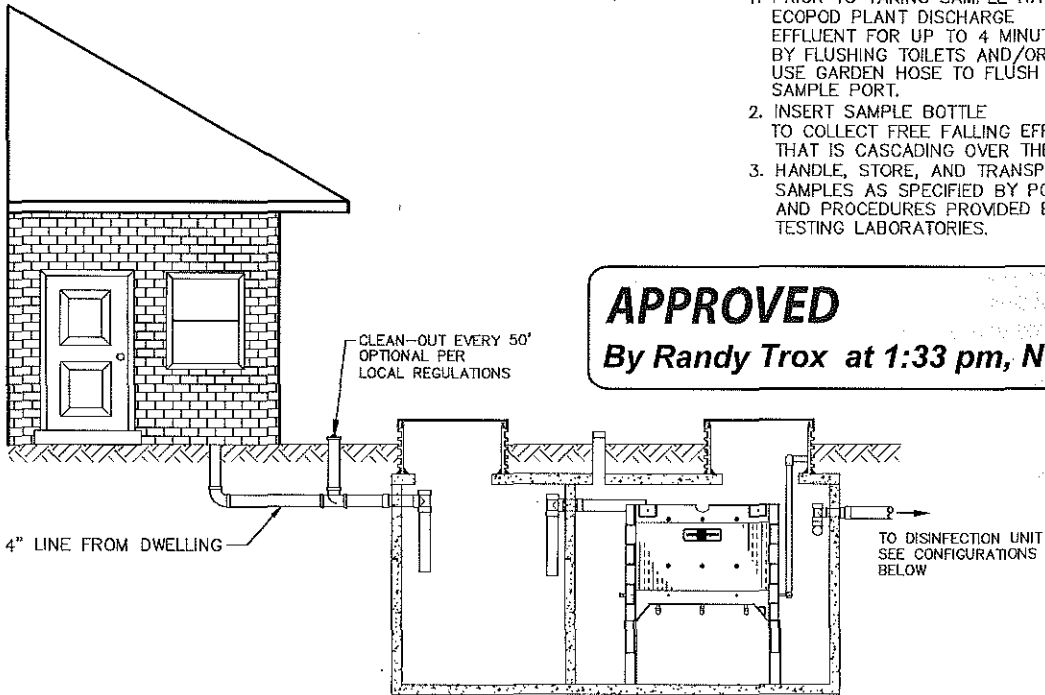


			DEP 24.5 115V EFFLUENT PUMP STATION INSTALLATION PROCEDURE						
REV.	DATE	REVISION DESCRIPTION	BY	PLOT SCALE	DRAWING NUMBER	DRAWN BY	DATE	SHEET OF	REV
				NTS	DEP287-EPN	D. WRIGHT	09/04/12	1 OF 1	A

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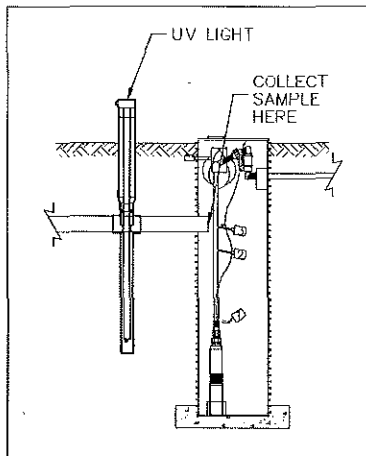
SAMPLE PROCEDURES:

1. PRIOR TO TAKING SAMPLE HAVE ECOPOD PLANT DISCHARGE EFFLUENT FOR UP TO 4 MINUTES BY FLUSHING TOILETS AND/OR USE GARDEN HOSE TO FLUSH OUT SAMPLE PORT.
2. INSERT SAMPLE BOTTLE TO COLLECT FREE FALLING EFFLUENT THAT IS CASCADING OVER THE EDGE.
3. HANDLE, STORE, AND TRANSPORT SAMPLES AS SPECIFIED BY POLICIES AND PROCEDURES PROVIDED BY THE TESTING LABORATORIES.

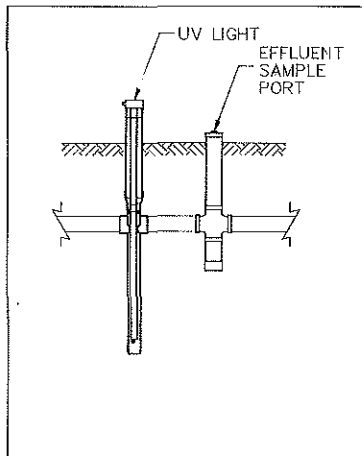


APPROVED
 By Randy Trox at 1:33 pm, Nov 23, 2015

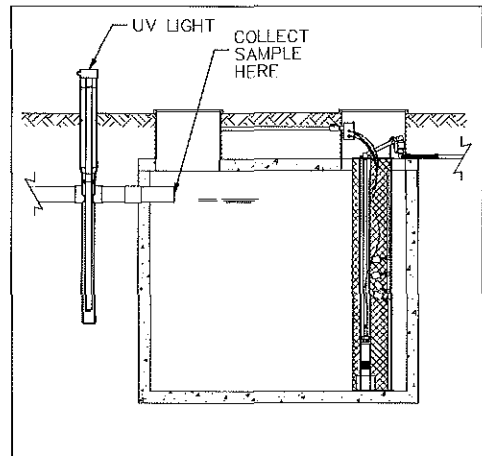
SAMPLE PORTS FOR UV CONFIGURATIONS



CONFIGURATION 1



CONFIGURATION 2



CONFIGURATION 3

					SAMPLE PORTS FOR UV CONFIGURATIONS				
REV.	DATE	REVISION DESCRIPTION	BY						
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