



4 ALBERT EMBANKMENT
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Ref. T5/1.22

BWM.2/Circ.25
19 August 2010

**INTERNATIONAL CONVENTION FOR THE CONTROL
AND MANAGEMENT OF SHIPS' BALLAST WATER
AND SEDIMENTS, 2004**

Communication received from the Government of Malta

A communication has been received from the Government of Malta concerning the approval of NEI Treatment Systems, LLC Model VOS-2500.

At the request of the Government of Malta, the above-mentioned communication annexed hereto is circulated to Member States for their information and future action as appropriate.

ANNEX



Transport Malta

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Malta

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9 August 2010

Secretary General
International Maritime Organization
4 Albert Embankment
London SE1 7SR

Sir

May I refer to Resolution MEPC.175 (58) whereby member States are to inform the organization when approving ballast water management systems.

In terms of paragraph 6.4 of Resolution MEPC.174 (58), the Government of Malta would like to submit the enclosed statement concerning the approval NEI Treatment Systems, LLC model VOS-2500 approved by this administration on 19 January 2010

I should be grateful if the attached statement is circulated to all Member States.

Yours faithfully

L C Vassallo
Permanent Representative
of Malta to IMO



BALLAST WATER MANAGEMENT SYSTEM
TYPE APPROVAL COMPLIANCE CERTIFICATE

This is to certify that the Ballast Water Management System listed below was examined and tested in accordance with the requirements of the specifications contained in the Guidelines contained in IMO Resolution MEPC.174 (58). This Type Approval Compliance Certificate is valid only for the Ballast Water Management System referred to below.

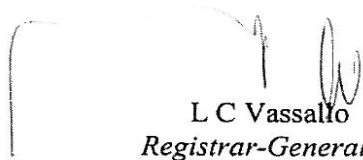
<i>Ballast Water Management System supplied by or under licence from:</i>	NEI Treatment Systems, LLC
<i>Under type and model designation</i>	VOS-2500
<i>and incorporating:</i>	
<i>Ballast Water Management System manufactured by or under licence from:</i>	NEI Treatment Systems, LLC
<i>To equipment/assembly drawing No.:</i>	07-2500-101 <i>Date:</i> 29 August 2007
<i>Other equipment manufactured by:</i>	--
<i>To equipment/assembly drawing No.:</i>	-- <i>Date:</i> --
<i>Treatment Rated Capacity:</i>	2,500 m ³ /h

A copy of this Type Approval Compliance Certificate should be carried on board a vessel fitted with this Ballast Water Management System at all times. A reference to the test protocol and a copy of the test results should be available for inspection on board the vessel.

No Limiting Conditions imposed.

This Type Approval Compliance Certificate is based on the Type Approval Certificate No. 02 NEI 070809 issued by the Republic of Liberia on 8 July 2009.

Issued at Valletta Malta this 19 January 2010


L C Vassallo
*Registrar-General of
Shipping and Seamen*

Date 6/15/2004
Treatment 7.2 hr

Ambient				
Temp oC	Salinity ppt	pH	DO mg/l	Chl upl
22.9	9	6.9	8.4	11.3
			TSS mg/l	POC mg/l
			n/a	n/a

Tank	Control Initial			
	Temp oC	Salinity ppt	pH	DO mg/l
1	23.7	9.1	7	8.1
2	24	9	n/a	7.8
3	23.3	9.2	n/a	8

Tank	Treatment Initial			
	Temp oC	Salinity ppt	pH	DO mg/l
4	23.5	9	5.9	0.4
5	24.1	9.1	n/a	1.8*
6	23.8	9	n/a	0.4

Tank	Control After			
	Temp oC	Salinity ppt	pH	DO mg/l
1	24	9.1	6.9	5.6
2	23.8	9.1	n/a	5.1
3	24.1	9.2	n/a	7.2

Tank	Treatment After			
	Temp oC	Salinity ppt	pH	DO mg/l
4	24.3	9.2	5.9	0.4
5	24.1	9.1	n/a	1.8*
6	24.1	9	n/a	0.4

Tank	Control After					
	Bacteria*	E. coli**	Enteroc**	Phyto Cells [^]	Live Zoo ^{^^}	Chl (mg/l)
1	n/a	< 10	41	8489.86	14840	4.97
2	n/a	< 10	41	7077.54	18430	7.70
3	n/a	< 10	63	7845.62	22154	8.87

Tank	Treatment After					
	Bacteria*	E. coli**	Enteroc**	Phyto Cells	Live Zoo	Chl (mg/l)
4	n/a	< 10	< 10	2054.44	10.6*	2.39
5	n/a	< 10	< 10	1805.06	0	3.20
6	n/a	< 10	41	2088.04	0	1.57

0.65 MDL

* = cells/ml
** = cfu/100ml
^ = cells (10-50um)/ml
^^ = live organisms >50um/m3
* 1 roller

Date 7/12/2004
Treatment 108 hr

Ambient				
Temp oC	Salinity ppt	pH	DO mg/l	Chl ug/l
28.1	11.9	7.9	7.1	16.1
			TSS mg/l	POC mg/l
			9.96	2.03

Tank	Control Initial			
	Temp oC	Salinity ppt	pH	DO mg/l
1	28.9	11.5	7.8	6.9
2	27.2	11.7	n/a	6.8
3	27.5	11.8	n/a	7.1

Tank	Control After					Regrow 24	Regrow 48
	Bacteria*	E. coli**	Enteroc**	Phyto Cells ^A	Live Zoo ^{AA}	Chl (mg/l)	Chl (mg/l)
1	n/a	n/a	< 10	< 4	15394	0.44	0.04
2	n/a	n/a	< 10	< 4	11613	0.38	0.04
3	n/a	n/a	< 10	< 4	8780	0.31	0.04

Tank	Treatment Initial			
	Temp oC	Salinity ppt	pH	DO mg/l
4	28	11.7	5.8	0.4
5	27.7	11.7	n/a	0.8
6	27.9	11.7	n/a	0.4

Tank	Treatment After					Regrow 24	Regrow 48
	Bacteria*	E. coli**	Enteroc**	Phyto Cells	Live Zoo	Chl (mg/l)	Chl (mg/l)
4	n/a	n/a	< 10	< 4	0	0.08	0.10
5	n/a	n/a	< 10	< 4	0	0.07	0.10
6	n/a	n/a	< 10	< 4	0	0.07	0.09

Tank	Control After			
	Temp oC	Salinity ppt	pH	DO mg/l
1	28.4	11.9	7.8	3.2
2	28	11.8	n/a	3.4
3	28.1	11.9	n/a	3.5

Tank	Treatment After			
	Temp oC	Salinity ppt	pH	DO mg/l
4	28	11.9	5.9	0.3
5	27.9	11.9	n/a	0.6
6	28.3	11.7	n/a	0.4

* = cells/ml
** = cfu/100ml
A = cells (10-50um)/ml
AA = live organisms >50um/ml

0.65 MDL
H2O blk 0.04 H2O blk 0.03 H2O blk 0.04

8/13/2004
120 hr

Ambient						
Temp °C	Salinity ppt	pH	DO mg/l	TSS mg/l	POC mg/l	Chl up/l
28.3	11.6	6.9	5.8	n/a	n/a	27.9

Tank	Control Initial				
	Temp °C	Salinity ppt	pH	DO mg/l	
1	27.1	11.5	7.3	7.3	
2	27.4	11.4	n/a	6.8	
3	26.6	11.7	n/a	7	

Tank	Control After					Regrow 24	Regrow 48
	Bacteria*	E. coli**	Enteroc**	Phyto Cells [†]	Live Zoa ^{††}		
1	n/a	< 10	< 10	1080.18	51880	0.47	n/a
2	n/a	< 10	< 10	1467.87	40805	1.12	n/a
3	n/a	< 10	< 10	1024.18	20027	3.30	n/a

Tank	Treatment Initial				
	Temp °C	Salinity ppt	pH	DO mg/l	
4	26.8	11.7	5.8	0.5	
5	27.1	11.8	n/a	0.5	
6	27.7	11.6	n/a	0.5	

Tank	Treatment After						Regrow 24	Regrow 48
	Bacteria*	E. coli**	Enteroc**	Phyto Cells	Live Zoo	Chl (mg/l)		
4	n/a	< 10	< 10	327.48	0	0.34	0.11	n/a
5	n/a	< 10	< 10	190.03	0	0.42	0.14	n/a
6	n/a	< 10	< 10	168.61	0	0.22	0.21	n/a

* = cells/ml
** = cfu/100ml
^ = cells (10-50um)/ml
^^ = live organisms > 50um/m3

0.65 MDL
H2O b1k 0.03

Tank	Control					Alter				
	Temp °C	Salinity ppt	pH	DO mg/l		Temp °C	Salinity ppt	pH	DO mg/l	
1	28.2	11.5	7.4	5.5						
2	28.3	11.8	n/a	5.3						
3	28	11.6	n/a	5.8						

Tarik	Treatment After			
	Temp oC	Salinity ppt	pH	DO mg/l
4	28.8	11.7	5.8	0.4
5	28.3	11.6	n/a	0.5
6	28.2	11.7	n/a	0.6

Date 7/1/2005
Treatment 96 h

Ambient				
Temp oC	Salinity ppt	pH	DO mg/l	Chl ug/l
26.8	12	7.9	8.7	11.8
TSS mg/l	POC mg/l			
15.28	4.89			

Tank	Control Initial			
	Temp oC	Salinity ppt	pH	DO mg/l
1	26.7	12	7.8	7.9
2	27	12.1	n/a	7.8
3	26.9	12	n/a	8.1

Tank	Control After				
	Bacteria*	E. coli**	Enterococci**	Phyto Cells ^Λ	Live Zoo ^{ΛΛ}
1	n/a	109	< 10	3460.28	34394
2	n/a	98	< 10	2818.3	20835
3	n/a	121	< 10	1817.16	23563
				Chl (mg/l)	Chl (mg/l)
				2.26	2.44
				1.71	2.70
				2.38	4.25

Tank	Treatment Initial			
	Temp oC	Salinity ppt	pH	DO mg/l
4	27.1	12	6.2	0.8
5	27.3	11.9	n/a	0.7
6	26.9	12	n/a	0.8

Tank	Treatment After				
	Bacteria*	E. coli**	Enterococci**	Phyto Cells	Live Zoo
4	n/a	10	< 10	1209.85	0
5	n/a	41	< 10	1007.44	0
6	n/a	< 10	< 10	1275.9	0
				Chl (mg/l)	Chl (mg/l)
				0.72	0.61
				0.80	0.59
				0.59	0.54

Tank	Control After			
	Temp oC	Salinity ppt	pH	DO mg/l
1	26.2	12	7.7	7.3
2	26	12	n/a	6.3
3	26.4	11.6	n/a	7.6

0.65 MDL

0.65 MDL

* = cells/ml

** = cfu/100ml

Λ = cells (10-50um)/ml

ΛΛ = live organisms >50um/m3

H2O blk 0.04

Tank	Treatment After			
	Temp oC	Salinity ppt	pH	DO mg/l
4	26.4	11.9	6.3	0.4
5	26.1	12.1	n/a	0.5
6	26.5	12.1	n/a	0.6

Date 7/26/2005
Treatment 120 hr

Ambient					
Temp oC	Salinity ppt	pH	DO mg/l	TSS mg/l	POC mg/l
30.6	13	8.2	8.1	10.71	3.53
					Chl up/l
					13.7

Tank	Control Initial			
	Temp oC	Salinity ppt	pH	DO mg/l
1	30.2	13	8	7.3
2	30.2	13	n/a	7.1
3	30.5	13.1	n/a	7.6

Tank	Treatment Initial			
	Temp oC	Salinity ppt	pH	DO mg/l
4	30	12.9	6.1	0.5
5	30.3	13	n/a	0.8
6	30.6	12.8	n/a	0.5

Tank	Control After			
	Temp oC	Salinity ppt	pH	DO mg/l
1	26.2	13	7.7	5.8
2	28	12.9	n/a	5.2
3	26.4	12.8	n/a	4.9

Tank	Treatment After			
	Temp oC	Salinity ppt	pH	DO mg/l
4	26.4	13.1	6.1	0.9
5	26.1	13.2	n/a	1
6	26.5	13	n/a	0.4

Tank	Control After					Regrow 24	Regrow 48
	Bacteria*	E. coli**	Enterococci**	Phyto Cells ^A	Live Zoa ^{AA}	Chl (mg/l)	Chl (mg/l)
1	n/a	63	< 10	#	34384	3.28	1.71
2	n/a	< 10	< 10	#	20835	2.63	3.62
3	n/a	41	< 10	#	23563	2.03	0.14

Tank	Treatment After					Regrow 24	Regrow 48
	Bacteria*	E. coli**	Enterococci**	Phyto Cells	Live Zoo	Chl (mg/l)	Chl (mg/l)
4	n/a	< 10	< 10	#	0	1.83	0.29
5	n/a	41	< 10	#	0	1.55	0.07
6	n/a	< 10	< 10	#	0	2.08	0.02

0.65 MDL
H2O blk 0.04

* = cells/ml
** = cfu/100ml
A = cells (10-50um)/ml
AA = live organisms >50um/m3

= Tim is working on these counts - will be ready before the end of Dec

Date 8/4/2005
Treatment 96 hr

Ambient					
Temp oC	Salinity ppt	pH	DO mg/l	TSS mg/l	Chl ug/l
30.4	13.5	8.2	8.1	n/a	14.8

Tank	Control Initial			
	Temp oC	Salinity ppt	pH	DO mg/l
1	30.2	13.4	8.2	7.6
2	30.6	13.3	n/a	7.9
3	30.5	13.6	n/a	7.7

Tank	Treatment Initial			
	Temp oC	Salinity ppt	pH	DO mg/l
4	30.8	13.5	8.1	0.6
5	30.5	13.5	n/a	0.6
6	30.6	13.4	n/a	0.7

Tank	Control After			
	Temp oC	Salinity ppt	pH	DO mg/l
1	31.1	13.5	7.9	4.8
2	30.9	13.6	n/a	4.8
3	31.2	13.6	n/a	4.8

Tank	Treatment After			
	Temp oC	Salinity ppt	pH	DO mg/l
4	31	13.5	6	0.9
5	31	13.5	n/a	0.6
6	30.8	13.5	n/a	0.3

Tank	Control After					
	Bacteria*	E. coli**	Entero**	Phyto Cells [^]	Live Zoo ^{^A}	Chl (mg/l)
1	n/a	<10	<10	#	42606	2.27
2	n/a	<10	10	#	44030	2.02
3	n/a	<10	10	#	31312	1.64
						Regrow 24 Chl (mg/l)
						Regrow 48 Chl (mg/l)

Tank	Treatment After					
	Bacteria*	E. coli**	Entero**	Phyto Cells	Live Zoo	Chl (mg/l)
4	n/a	<10	<10	#	21*	1.32
5	n/a	<10	<10	#	0	1.88
6	n/a	<10	<10	#	0	1.46
						Regrow 24 Chl (mg/l)
						Regrow 46 Chl (mg/l)

* 2 copepods

* = cells/ml

** = cfu/100ml

[^] = cells (10-50um)/ml

^{^A} = live organisms >50um/m3

= Tim is working on these counts - will be ready before the end of Dec

SHIPBOARD VOS TESTS

Date 1/15/2005
Treatment ~ 120 hr Jax-Hou

VOS dose-response trial

Ambient (ship-side a few minutes prior to ballasting)					
Temp °C	Salinity ppt	pH	DO mg/l	TSS mg/l	POC mg/l
17.8	18.9	n/a	7.5	n/a	n/a
					Chl ug/l 1.8

TANK	Control Initial (water in control tank at start of voyage)	
	Temp °C	Salinity ppt
3Port		
Shallow = 1 m below surface	17.5	22.5
Deep = 1 m above bottom	17.8	23.2

TANK	Treatment Initial (water in VOS treated tank at start of voyage)	
	Temp °C	Salinity ppt
3Star		
Shallow	18.3	25
Deep	18.3	25.9

TANK	Control After (water in control tank at end of voyage)	
	Temp °C	Salinity ppt
3Port		
Shallow	23.2	26.7
Deep	23.1	26.7

TANK	Treatment After (water in VOS treated tank at end of voyage)	
	Temp °C	Salinity ppt
3Star		
Shallow	25.5	27.4
Deep	23.7	27.4

TANK	Control Initial (biology in control water from test tank at end of voyage)			
	Bacteria*	E. coli**	Enteroc**	Live Zoo**
3Port				
Shallow = 1 m below surface	1,783,478	n/a	n/a	23,794
Deep = 1 m above bottom	1,688,734	n/a	n/a	14,828
				ave 19,311

TANK	Treatment Initial (biology in VOS-treated water from test tank at end of voyage)			
	Bacteria*	E. coli**	Enteroc**	Live Zoo**
3Star				
Shallow	1,537,615	n/a	n/a	21,334
Deep	1,571,989	n/a	n/a	14,311
				ave 17,823

TANK	Control After (biology in control water from test tank at end of voyage)			
	Bacteria*	E. coli**	Enteroc**	Live Zoo**
3Port				
Shallow	522,881	10	< 10	4,838
Deep	657,184	< 10	< 10	1,367
				ave 3,103

TANK	Treatment After (biology in VOS-treated water from test tank at end of voyage)			
	Bacteria*	E. coli**	Enteroc**	Live Zoo**
3Star				
Shallow	122,870	< 10	< 10	< 30
Deep	425,513	< 10	< 10	< 33
				ave < 30

** = cfu/100ml
* = cells (10-50um)/ml
** = live organisms >50um/m3
ND = Non-Detect
Negative regrowth near detection limit = no detectable live phytoplankton
Turner Design In vivo chl a fluorometer detection limit of 0.30 ug/l

SHIR-6C
Date
Treatment

J VOS TESTS

5/11/2005
108 hr Jax-Port Arthur

Ambient (ship-side a few minutes prior to ballasting)				
Temp °C	Salinity ppt	pH	DO mg/l	Chl ug/l
22.7	16.3	n/a	7.0	n/a
				0.82

TANK	Control Initial (water in control tank at start of voyage)		
	Temp °C	Salinity ppt	DO mg/l
3Port			
Shallow = 1 m below surface	24.1	21.1	n/a
Deep = 1 m above bottom	22.8	21.3	n/a
4Port			
Shallow = 1 m below surface	22.8	18	n/a
Deep = 1 m above bottom	22.8	16.3	n/a

TANK	Treatment Initial (water in VOS treated tank at start of voyage)		
	Temp °C	Salinity ppt	DO mg/l
3Star			
Shallow	23.2	21.3	6.5
Deep	22.6	21.3	6.5
4Star			
Shallow	22.9	18.8	6.1
Deep	22.9	16.8	6.1

TANK	Control After (water in control tank at end of voyage)		
	Temp °C	Salinity ppt	pH
3Port			
Shallow	26.8	20.7	n/a
Deep	26.1	21.6	n/a
4Port			
Shallow	26.7	16.1	n/a
Deep	25.9	16.9	n/a

TANK	Treatment After (water in VOS treated tank at end of voyage)		
	Temp °C	Salinity ppt	pH
3Star			
Shallow	28.1	21.3	6.4
Deep	26.5	21.6	6.5
4Star			
Shallow	26.7	16.4	6.2
Deep	26.4	16.4	6.2

TANK	Control Initial (biology in control water from test tank at end of voyage)			
	Bacteria*	E. coli**	Enteroc**	Live Zoo**
3Port				
Shallow = 1 m below surface	2,594,334	n/a	n/a	498,552
Deep = 1 m above bottom	3,169,435	n/a	n/a	37,957
4Port				
Shallow = 1 m below surface	2,824,832	n/a	n/a	503,150
Deep = 1 m above bottom	2,523,671	n/a	n/a	40,711
				ave 306,431

TANK	Treatment Initial (biology in VOS-treated water from test tank at end of voyage)			
	Bacteria*	E. coli**	Enteroc**	Live Zoo**
3Star				
Shallow	2,834,771	n/a	n/a	2,162
Deep	2,928,704	n/a	n/a	3,829
4Star				
Shallow	2,354,743	n/a	n/a	2,938
Deep	2,824,648	n/a	n/a	2,332
				ave 2,635

TANK	Control After (biology in control water from test tank at end of voyage)			
	Bacteria*	E. coli**	Enteroc**	Live Zoo**
3Port				
Shallow	1,399,617	n/a	n/a	25,975
Deep	1,263,682	n/a	n/a	4,775
4Port				
Shallow	1,897,012	n/a	n/a	21,740
Deep	1,423,687	n/a	n/a	5,045
				ave 13,393

TANK	Treatment After (biology in VOS-treated water from test tank at end of voyage)			
	Bacteria*	E. coli**	Enteroc**	Live Zoo**
3Star				
Shallow	578,094	n/a	n/a	0
Deep	618,970	n/a	n/a	0
4Star				
Shallow	317,381	n/a	n/a	0
Deep	591,354	n/a	n/a	0

** = cfu/100ml
* = cells (10-50µm)/ml
** = live organisms >50µm/m3

SHIPBO. J VOS TESTS

Date 5/21/2005

Treatment 114 hr Jax - Port Arthur

(ship-side a few minutes prior to ballasting)				
Control Initial		Ambient		
Tank	Temp °C	Salinity ppt	pH	DO mg/l
3Port	n/a	n/a	n/a	n/a
Shallow = 1 m below surface	24.6	16.4	7.7	6.9
Deep = 1 m above bottom	24.8	16.6	7.8	5.8
4Port				
Shallow = 1 m below surface	24.8	21.0	6.9	6.5
Deep = 1 m above bottom	24	21.4	7	5.4

(water in control tank at start of voyage)				
Tank	Temp °C	Salinity ppt	pH	DO mg/l
3Port				
Shallow = 1 m below surface	24.6	16.4	7.7	6.9
Deep = 1 m above bottom	24.8	16.6	7.8	5.8
4Port				
Shallow = 1 m below surface	24.8	21.0	6.9	6.5
Deep = 1 m above bottom	24	21.4	7	5.4

(biology in control water from test tank at end of voyage)				
Tank	Bacteria*	E. coli**	Entero**	Live Zoo**
3Port				
Shallow = 1 m below surface	3,709,870	n/a	n/a	112,590
Deep = 1 m above bottom	3,617,360	n/a	n/a	200,577
4Port				
Shallow = 1 m below surface	2,120,960	n/a	n/a	13,600
Deep = 1 m above bottom	2,261,261	n/a	n/a	51,274
				ave 32,437

(water in VOS treated tank at start of voyage)				
Tank	Temp °C	Salinity ppt	pH	DO mg/l
3Star				
Shallow	24.5	15.5	6.3	0.7
Deep	24.5	15.6	6.2	0.7
4Star				
Shallow	25.3	24.2	6.5	0.8
Deep	24.1	25.6	6.3	0.7

(biology in VOS-treated water from test tank at end of voyage)				
Tank	Bacteria*	E. coli**	Entero**	Live Zoo**
3Star				
Shallow	3,478,928	n/a	n/a	11,485
Deep	3,345,997	n/a	n/a	10,134
4Star				
Shallow	2,292,654	n/a	n/a	2,524
Deep	2,500,239	n/a	n/a	1,303
				ave = 1,914

(water in control tank at end of voyage)				
Tank	Temp °C	Salinity ppt	pH	DO mg/l
3Port				
Shallow	27.0	19	7.6	5.1
Deep	27.0	19.2	7.6	5.1
4Port				
Shallow	27.5	27.3	7	1.6
Deep	27.5	27.6	7	1.7

(biology in control water from test tank at end of voyage)				
Tank	Bacteria*	E. coli**	Entero**	Live Zoo**
3Port				
Shallow	1,547,383	84	<10	26,364
Deep	1,473,935	41	<10	19,142
4Port				
Shallow	1,048,384	98	10	13,402
Deep	1,128,162	108	<10	5,428
				ave 9,459

(water in VOS treated tank at end of voyage)				
Tank	Temp °C	Salinity ppt	pH	DO mg/l
3Star				
Shallow	27.6	18.7	6.3	0.4
Deep	27.6	18.8	6.3	0.3
4Star				
Shallow	28.4	28.5	6.3	0.4
Deep	28	28.6	6.2	0.4

(biology in VOS-treated water from test tank at end of voyage)				
Tank	Bacteria*	E. coli**	Entero**	Live Zoo**
3Star				
Shallow	726,862	31	<10	ND
Deep	760,849	63	<10	ND
4Star				
Shallow	654,653	<10	<10	ND
Deep	825,951	10	<10	ND
				ave <10

* = cells/ml
** = cfu/100ml
* = cells (10-50um)/ml

BACTERIA RESPONSE TO VOS

ENTEROCOCCUS

Date 8/11/2004

Treatment 1 hr

Tank	Control - 1hr (cfu/100 ml)	Treated - 1hr (cfu/100 ml)	Control - 24hr (cfu/100 ml)	Treated - 24 hr (cfu/100 ml)
1	130	30	41	9
2	1467	90	345	90
3	1374	9	173	9
Avg	990.33	43	186.33	36

E.COLI

Date 8/24/2004

Treatment 24hr

Tank	Control - 1hr (cfu/100 ml)	Treated - 1hr (cfu/100 ml)	Control - 24hr (cfu/100 ml)	Treated - 24 hr (cfu/100 ml)
1	727	228	404	9
2	805	98	269	10
3	754	155	323	20
Avg	762	160.33	332	13