U.S. Department of Homeland Security
United States Coast Guard

Commandant
United States Coast Guard

2703 Martin Luther King Jr. Ave. SE
Washington, DC 20593-7509
Staff Symbol: CG-OES
Phone: 202-372-1431
Fax: 202-372-8382
Email: Regina.R.Bergner@uscg.mil

5760
January 22, 2016

NEI Treatment Systems, LLC
Attn: Mr. John D. Bradley
Chief Executive Officer
249 E. Ocean Boulevard, Suite 500
Long Beach, CA 90802

ALTERNATE MANAGEMENT SYSTEM ACCEPTANCE

The Coast Guard has completed its review of additional materials submitted for the Alternate Management System (AMS) application submitted by NEI Treatment Systems, LLC, for the Venturi Oxygen System (VOS) ballast water treatment system (BWTS), and has prepared this revised AMS acceptance letter.

This letter grants AMS acceptance in accordance with the requirements of 33 CFR 151.2026 for VOS models VOS-500 to -6000 with ballast water treatment rated capacities of 100 to 6,500 cubic meters/hour (m3/hr), as type approved by the Netherlands Ministry of Transport, Public Works, and Water Management, and as detailed in type approval certificate No. 6698/2011 issued on July 18, 2011, and expiring July 18, 2016. AMS acceptance is based on this type approval certificate issued by the Netherlands Ministry of Transport, Public Works, and Water Management.

VOS models have also been issued type approval certificates from the following:

- The Office of the Maritime Administrator of the Marshall Islands under an un-numbered type approval certificate issued August 6, 2011, for VOS models VOS-500 to -6000;
- The Bureau of Maritime Affairs of the Republic of Liberia under type approval certificate No. 2NEI092211 issued September 22, 2011, for VOS models VOS-500 to -6000;
- The Panama Maritime Authority under type approval certificate No. TA-0001 issued February 11, 2010, for the VOS-2500 model
- The Government of Malta under an un-numbered type approval certificate issued January 19, 2010, for the VOS-2500 model.

This revised letter recognizes the amendment to the Marshall Islands type approval, dated August 21, 2015, which allows for an alternative arrangement for delivering inert gas to the ballast tanks. All provisions and restrictions of the type approval certificates from both the Marshall Islands and the Netherlands apply to any vessel using the alternate scheme approved by the Marshall Islands.

The VOS BWTSs are assigned the following AMS identification number:

AMS-2013-NEI VOS-001

Coast Guard acceptance of the VOS BWTS as an AMS does not accord or imply conformance to or compliance with any other Federal, state, or local water discharge effluent limitations that may apply to the vessel on which the AMS operates or the regulatory regimes and locations within which it operates. The owner and operator of the vessel must comply with all applicable laws, regulations, and treaties, including the Clean Water Act and associated provisions of the Vessel General Permit (VGP); the Federal Insecticide, Fungicide, and Rodenticide Act of 1972, as amended (FIFRA); other Coast Guard safety regulations and requirements; and other applicable laws and regulations.

In accordance with 33 CFR 151.2026 (a)(5), the AMS application required the submittal of a type approval application for the BWTS. The type approval information submitted with the AMS application does not have any bearing on the type approval status of the BWTS, nor does Coast Guard acceptance of the VOS BWTS as an AMS indicate that the BWTS meets requirements for Coast Guard type approval.

The following conditions apply for the operation of the VOS BWTS in U.S. waters:

1. The AMS manufacturer must comply with all general conditions of certification stipulated in the type approval certificate issued by the Netherlands Ministry of Transport, Public Works, and Water Management. Revocation of type approval by the approving authority will result in revocation of this AMS acceptance. Copies of all reports required under the stated conditions of use must be submitted to the Office of Environmental Standards (OES-3) at the following address or email:

   COMMANDANT (CG-OES-3)
   United States Coast Guard Stop 7509
   2703 Martin Luther King Jr. Ave SE
   Washington DC 20593-7509
   e-mail: environmental_standards@uscg.mil

2 Installation and repairs of the AMS must be performed in accordance with the manufacturer's instructions and approved by the flag administration or its representative.

3 Operation and maintenance must be conducted in accordance with all specifications and limiting conditions stipulated on the certificates of type approval and with the manufacturer's instructions, including any limitations posed by environment (for example, water quality, temperature, salinity, or other parameters) or vessel operations (for example, voyage duration, pumping rates, or other constraints). The following specific conditions apply:

a. **Flow rates**: The flow rate of ballast water through the system should not exceed the treatment rated capacity (TRC) for the installed system.

b. **Oxygen Content of Inert Gas from the Stripping Gas Generator:** The NEI VOS is designed to deliver de-oxygenated gas with an oxygen concentration of 0.2% from the stripping gas generator to the venturi unit for mixing with the ballast water. A visual and audio alarm will sound if the oxygen concentration of the inert gas exceeds 0.5%.

c. **Dissolved Oxygen Content of Ballast Water:** In order for the NEI VOS to achieve the biological efficacy observed in tests conducted for foreign type approval, the dissolved oxygen content of the treated ballast water should not exceed 1.0 parts per million (ppm) or 1 milligram per liter (mg/L). A visual and audio alarm (Alarm No. 18) will sound if dissolved oxygen content exceeds 1.0 ppm. The operator must then make the necessary system adjustments, as described in the NEI VOS BWMS operations manual.

d. **Holding Time**: In order for the NEI VOS to achieve the biological efficacy observed in tests conducted for foreign type approval, a minimum holding time of 4 days (96 hours) is required for treated ballast water. Treatment start time and time of ballast water discharge after treatment must be recorded.

A historical record documenting that the system has been operated within these criteria, including a record of any alarm conditions, any deviations from the manufacturer's operating instructions, or any conditions and requirements noted above, shall be available for review onboard the vessel.

4 If installed on a U.S. flag vessel, it must be shown that the system and installation comply with or provide an equivalent level of safety to the requirements of 46 CFR Subchapter F (Marine Engineering) and Subchapter J (Electrical Engineering). All electrical equipment located within hazardous areas must be explosion proof or intrinsically safe as certified by an independent laboratory recognized by USCG per 46 CFR 111.105-7.

5 Use of the AMS is specified in the ship's ballast water management plan (BW plan), required by 33CFR 151.2050(g). The BW plan must identify the following: (1) the ballast water management practices to be used in the event the AMS cannot be used, and (2) the personnel responsible for the operation, maintenance, and repair of the BWTS. An up-to-date record of the operation, maintenance, and repair of the BWTS must be maintained onboard the ship.

6 Any change in design, materials, manufacturing, or intended operational conditions of this BWTS without prior notification to, and acceptance by, the U. S. Coast Guard will automatically invalidate this AMS acceptance. Prior to any such change, the

manufacturer of an AMS must notify the Commanding Officer, U. S. Coast Guard Marine Safety Center (MSC), at the following address or e-mail:

Commanding Officer (MSC)
Attn: Marine Safety Center
U.S. Coast Guard Headquarters
2703 Martin Luther King Jr. Ave. SE
Washington, DC 20593-7509
e-mail: msc@uscg.mil

The notification must include the following: (1) a description of the change, the reason it is required, and its intended advantages; (2) an explanation of any effect of the change on installation, operation, maintenance, or repair requirements; and (3) an indication of whether or not the original configuration of the BWTS will be discontinued.

7 If the installed AMS does not operate properly when treating ballast water intended for discharge in U.S. waters, the person directing the movement of the vessel must ensure that the problem is reported to the nearest Coast Guard Captain of the Port (COTP) or District Commander as soon as practicable. The Coast Guard shall be notified of any treatment system or component failures, any irreparable or recurring damage to components of the AMS, frequent process upsets or out-of-bounds operating conditions, or other situations or process-related conditions that may reduce treatment effectiveness. The vessel may continue to the next U.S. port of call, subject to the directions of the COTP or District Commander, as provided by 33 CFR 160.

8 All transport and handling of chemicals required for proper operation of the AMS must be conducted in accordance with 46 CFR 147 (Hazardous Ships' Stores), 49 CFR 171-180 (Hazardous Materials Regulations), and 46 CFR 98.30 (portable tanks), as appropriate.

9 Use of the AMS must be reported in the ship’s ballast water management reports submitted to the National Ballast Information Clearinghouse, as required by 33CFR 151.2060, as follows:

a. In Section 4, report the number of tanks treated by the AMS in the space labeled “Underwent Alternative Management,”
b. In Section 4, write the AMS identification number (AMS-2013-NEI VOS-001) in the space labeled “Please specify alternative method(s) used, if any,” and;
c. In Section 5, in the middle section titled “BW MANAGEMENT PRACTICES” identify the management method as “ALT” under the heading “Method (ER/FT/ALT)” for each tank for which the AMS was used.

The Coast Guard may suspend, withdraw or terminate the acceptance of this BWTS as an AMS in accordance with 46 CFR 2.75-40, 2.75-50(a) and 2.75-50(b), respectively.

A copy of this letter shall be provided to each vessel with this installed AMS and shall be available for review when the vessel is operating in U.S. waters.

I thank you for your dedicated efforts to seek out AMS acceptance, and we look forward to working with you throughout the type approval process. If you have any questions concerning this letter, you may contact Ms. Regina Bergner of my staff at (202) 372-1431 or Regina.R.Bergner@uscg.mil.

Sincerely,

S.J. KELLY
Captain, U.S. Coast Guard
Office of Operating and Environmental Standards