

U.S. Department of  
Homeland Security

United States  
Coast Guard



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5760  
January 25, 2016

Jiangsu Nanji Machinery Company, Ltd.  
Attn: Mr. Baiqi Zhang  
No. 1 Zhongyuan Road, Dasheng District  
Taixing, Jiangsu  
China 225400

#### ALTERNATE MANAGEMENT SYSTEM ACCEPTANCE – REVISION 1

The Coast Guard has completed its review of the Alternate Management System (AMS) application and the reissued type approval certificates for the Jiangsu Nanji Machinery Company, Ltd., for the NiBallast ballast water treatment system (BWTS). This letter grants AMS acceptance in accordance with the requirements of 33 CFR 151.2026 for NiBallast models NB-200, -300, -400, -500, -600, -800, -1000, -1200, -1500, -1800, -200, -2500, -3000, -4000, and -5000, with associated filter units and equipment, as type approved by the China Classification Society (CCS) on behalf of the government of the People's Republic of China. *This letter recognizes that type approval certificate No. NJ15T00191\_01, issued September 12, 2015, is a modification and renewal of type approval certificate No. NJ13T00142-02, issued 15 January 2013. The reissued type approval certificate includes additional models NB-1200, -1800, -2000, -2500, -3000, -4000, and -5000.*

The NiBallast BWTS retains the following AMS identification number:

AMS-2013-Jiangsu Nanji NiBallast-001

Coast Guard acceptance of the NiBallast 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 NiBallast system as an AMS indicate that the BWTS meets requirements for Coast Guard type approval.

The following conditions apply for the operation of the NiBallast 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 CCS on behalf of the government of the People's Republic of China, as referenced above. 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:

Environmental Standards Division (CG-OES-3)  
Alternate Management System Program  
U.S. Coast Guard Headquarters  
U.S. Coast Guard Mail 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 certificate 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 NiBallast model. A historical record of flow rate is available via readouts from the PLC monitor panel.
  - b. **Differential pressure across the filter:** The NiBallast BWTS includes a 50-micron ( $\mu\text{m}$ ) wire filter and a 10- $\mu\text{m}$  membrane separation unit, with a working pressure of 0.35 MPa in the filter units. The pressure differential across the filter should not exceed 0.5 MPa. The NiBallast BWTS is set to automatically back flush at 0.5 MPa pressure differential across the filter. An alarm will activate at the control panel if differential pressure exceeds 0.5 MPa.
  - c. **Retention of treated ballast water in ballast tanks:** The treated ballast water must be maintained in the ballast tanks for a minimum of 12 hours in order for the de-oxygenation process to achieve biological efficacy levels equal to the test results cited in the CCS type approval certificate.

- d. **Nitrogen positive pressure levels:** Nitrogen generated by this BWTS or supplied from external sources must be injected/infused into the ballast water at a design working pressure of 0.7 MPa in the ballast tanks, and at a minimum positive pressure of 0.05 to 0.06 MPa. This minimum pressure is required to displace oxygen and drive the de-oxygenation process needed to achieve a treatment efficacy equivalent to the test results cited in the CCS type approval certificate. Nitrogen positive pressure is monitored and controlled by the PLC of this BWTS. Alarms activate if the positive pressure of nitrogen is less than 0.05 bar (0.005 MPa).

*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.

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-Jiangsu Nanji NiBallast-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