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| Date:  APPLICATION FOR APPROVAL OF USE OF  AUTONOMOUS NAVIGATION SYSTEMS  (New　　Change　　Renewal)  To: Messrs. NIPPON KAIJI KYOKAI  Name of Applicant:  Address:  (Signature)  We hereby request issuance of a certificate on the following autonomous navigation systems in accordance with the “Rules for the Survey and Construction of Steel Ships” and “Guidelines for Automated/Autonomous Operation on ships” on satisfactory completion of tests and inspection. This request is made on the basis that we accept the provisions of “Conditions of Service for Classification of Ships and Registration of Installations” of NIPPON KAIJI KYOKAI.  We agree to pay all survey fees and expenses incurred as a result of the above-mentioned services regardless of whether the results of the services are acceptable or not. | | | |
| Name of article |  | | |
| Type  (Those of similar type, if any,  to be described separate) |  | | |
| Name of manufacturer for System (including factory) |  | | |
| Address |  | | |
| Tel. No. |  | | |
| Provided function  and  Software version | (Provided functions)  Situational awareness  Collision and grounding avoidance  Route execution and monitoring  Data recording  Alert management | :  :  :  :  : | (Software version) |
| Level of autonomy | 1 (Support)　  2 (Conditional autonomous)　 3 (Advanced autonomous) | | |
| Phase of navigation | Level of autonomy 1:  Berth/unberth　  Harbor　  Coastal　  Open sea  Level of autonomy 2:  Berth/unberth　  Harbor　  Coastal　  Open sea  Level of autonomy 3:  Berth/unberth　  Harbor　  Coastal　  Open sea | | |
| Apply to “Automatic Devices and Equipment (Environmental Test)” | Yes  No | | |
| Apply to “Approval of Use of Computer Based System” | Yes  No | | |
| Apply to “Approval of Use of Systems and Equipment with Improved Cyber Resilience” | Yes  No | | |
| Apply to additional security capabilities4,5 | Yes  No | | |
| Drawings | Fill out the following attached sheets that applies:  Attached sheet 1: A. Autonomous Navigation Systems  Attached sheet 2: B. Automatic Devices and Equipment (Environmental Test)6  Attached sheet 3: C. Computer Based Systems7  Attached sheet 4: D. Systems and Equipment with Improved Cyber Resilience4 | | |
| Where to Contact | Address:  E-mail:  Name of Sec. Dept:  Name of person in Charge: | | |
| Remarks |  | | |

Notes:

1. In case space is in short, use separate sheets.
2. Cross out with a straight line on unnecessary letter.
3. The applicant is to be identical to the section of the manufacturer in charge of the equipment concerned.
4. In case apply to “Approval of Use of Systems and Equipment with Improved Cyber Resilience” simultaneously.
5. Check “Yes” in case that computer-based systems with network communication to untrusted networks (4.4.3, Part X of the Rules for the Survey and Construction of Steel Ships).
6. In case apply to “Automatic Devices and Equipment (Environmental Test)” simultaneously.
7. In case apply to “Approval of Use of Computer Based Systems” simultaneously.

(Attached sheet 1)

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| A. Autonomous Navigation Systems8  (Annex I-1.4.3 of Guidelines for Automated/Autonomous Operation on ships) | | |
| Documents need to be submitted | Document title | Document No. |
| -1(2) ConOps for the ship installed with ANS |  |  |
| -1(3) Functional requirement specifications and designs for ANS |  |  |
| -1(4) Manual for ANS (including outline, operating procedures, maintenance procedures and contact information in case of malfunction) |  |  |
| -1(5) Results of risk assessment |  |  |
| -1(6) Documents related to the design and development system (quality plan and quality manual) |  |  |
| -1(7) Documents related to the design and development process |  |  |
| -1(8) Result of function confirmation test |  |  |
| -1(9) FAT plans |  |  |
| -1(10) Change management procedure |  |  |
| -2(1) Environmental compliance |  |  |
| -2(2) Software test report |  |  |
| -2(3) System test report |  |  |
| -2(4) FAT report |  |  |
| -2(5) Additional FAT documentation (e.g. user manuals) |  |  |

Notes:

1. Refer to Annex I of Guidelines for Automated/Autonomous Operation on ships regarding rules and required documents.

(Attached sheet 2)

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| B. Automatic Devices and Equipment9,10  (1.2.1, Part 7 of Guidance for the Approval and Type Approval of Materials and Equipment for Marine Use) | | |
| Documents need to be submitted | Document title | Document No. |
| (1) Specifications (description of the product name, type, principal particulars, use, construction, performance, etc.) |  |  |
| (2) List of equipment including the similar type |  |  |
| (3) System diagram (when systems are composed of plural units) |  |  |
| (4) Construction drawings (general dimensions and sectional assembly plan, etc.) |  |  |
| (5) Wiring diagram (electrical systems), piping diagram (pneumatic or hydraulic systems) |  |  |
| (6) List of major parts (this may be included in the above (2) or (4))  (a) Product name, principal particulars, material, quantity, applicable rules and standards are to be specified.  (b) Bought-in parts are to be included. |  |  |
| (7) Instruction manual (including operating procedure) |  |  |
| (8) Inspection and test specification for quality control (including test data) |  |  |
| (9) Past records of products (if any) |  |  |
| (10) Environmental test procedures prepared according to 1.3. |  |  |
| (11) Certificate and test result certificate issued by bodies recognized by the Society (if any) |  |  |

Notes:

1. In case apply to “Approval of Use of Automatic Devices and Equipment (Environmental Test)” simultaneously.
2. Refer to the Chapter 1, Part 7 of “Guidance for the Approval and Type Approval of Materials and Equipment for Marine Use” regarding rules and required documents for “Approval of Use of Automatic Devices and Equipment (Environmental Test)”.

(Attached sheet 3)

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| C. Computer Based Systems11,12  (8.2.2, Part 7 of Guidance for the Approval and Type Approval of Materials and Equipment for Marine Use) | | |
| Documents need to be submitted | Document title | Document No. |
| (1)(a) Quality plan (and quality manual) |  |  |
| (1)(b) System description (System specification and design) |  |  |
| (1)(c) FAT program |  |  |
| (1)(d) Change management procedure |  |  |
| (1)(e) Other drawings and data deemed necessary by the Society |  |  |
| (2)(a) A certificate issued in accordance with Chapter 1, Part 7 of Guidance for the Approval and Type Approval of Materials and Equipment for Marine Use or documents proving satisfaction with environmental tests specified in Table 7.1-1 of the Guidance. |  |  |
| (2)(b) Software test report |  |  |
| (2)(c) System test report |  |  |
| (2)(d) FAT report |  |  |
| (2)(e) Additional FAT documentation (e.g. user manuals) |  |  |
| (2)(f) Other drawings and data deemed necessary by the Society (e.g. FMEA) |  |  |

Notes:

1. In case apply to “Approval of Use of Computer Based Systems” simultaneously.
2. Refer to the Chapter 8, Part 7 of Guidance for the Approval and Type Approval of Materials and Equipment for Marine Use regarding rules and required documents for “Approval of Use of Computer Based Systems”.

(Attached sheet 4)

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| D. Systems and Equipment with Improved Cyber Resilience13,14  (10.2.2, Part 7 of “Guidance for the Approval and Type Approval of Materials and Equipment for Marine Use”) | | |
| Documents need to be submitted | Document title | Document No. |
| (1)(a) Computer-based system asset inventory |  |  |
| (1)(b) Topology diagrams |  |  |
| (1)(c) Description of security Capabilities |  |  |
| (1)(d) Test procedure for security Capabilities |  |  |
| (1)(e) Secure development lifecycle |  |  |
| (1)(f) Other drawings and data deemed necessary by the Society |  |  |
| (2)(a) Security configuration Guidelines |  |  |
| (2)(b) Plans for maintenance and Verification |  |  |
| (2)(c) Information supporting incident response and recovery plans |  |  |
| (2)(d) Management of change plan |  |  |
| (2)(e) Other drawings and data deemed necessary by the Society |  |  |

Notes:

1. In case apply to “Approval of Use of Systems and Equipment with Improved Cyber Resilience” simultaneously.
2. Refer to the Chapter 8, Part 7 of Guidance for the Approval and Type Approval of Materials and Equipment for Marine Use regarding rules and required documents for “Approval of Use of Systems and Equipment with Improved Cyber Resilience”.