



DEPARTMENT OF THE NAVY  
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OPNAVINST 9220.3A  
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OPNAV INSTRUCTION 9220.3A

From: Chief of Naval Operations

Subj: PROPULSION AND AUXILIARY PLANT INSPECTION AND INSPECTOR  
CERTIFICATION PROGRAM (NON-NUCLEAR)

Ref: (a) COMUSFLTFORCOMINST 4790.3  
(b) NAVSEA S9086-GY-STM-010, Naval Ships Technical  
Manual (NOTAL)  
(c) NAVSEA S9587-B1-MMA-010, Catapult Steam Support  
Systems for CV/CVN Class Ships (NOTAL)  
(d) NAVSEA S9534-AD-MMA-010, Steam Reboiler Maintenance  
(NOTAL)  
(e) NAVSEA S9221-D2-MMA-010, Steam Generating Plant  
Inspection Manual (Non-Nuclear) (NOTAL)  
(f) NAVSEA S9233-CJ-HBK-010, Navy Diesel Engine  
Inspector Handbook (NOTAL)  
(g) NAVEDTRA 10500

1. Purpose

a. To establish policy for the inspection requirements of all U.S. Navy diesel engines, conventional steam generating plants, re-boilers, steam catapult accumulators, and marine gas turbine engines; and to outline command and incumbent functional areas of responsibility.

b. To establish policy governing the certification for all steam generating plant inspectors, diesel engine inspectors, and marine gas turbine inspectors.

c. This revision removes the technical information to include inspection periodicity requirements, which is published in references (a) through (f) and focuses on governing policies. This is a complete revision and should be reviewed in its entirety.

2. Cancellation. OPNAVINST 9220.3.

3. Discussion

a. To maintain fleet operational capability and preclude serious personnel and material casualties, a stringent inspection program is established for all diesel engines, conventional steam generating plants, re-boilers, steam catapult accumulators, and marine gas turbine engines. Inspection requirements must be carefully prescribed and standardized to achieve consistency and effectiveness of inspections. Emphasis at all levels of command is required to achieve the desired standards and to maintain overall fleet readiness.

b. Steam plant pressure vessels, including propulsion boilers, auxiliary boilers, waste heat boilers, steam catapult accumulators, and re-boilers must receive strength and integrity inspections and industrial inspections by the Naval Surface Warfare Center Carderock Division Ship Systems Engineering Station (NAVSURFWARCEN SHIPSYSENGSTA) and life cycle manager inspectors per references (a), (b) chapter 221, (c), (d), and (e). These inspections involve areas not normally covered by steam generating plant inspectors.

c. Steam generating plants on leased foreign military sales ships are subject to the same general requirements as those for U.S. Navy ships.

4. Action. All diesel engines, conventional steam generating plants, re-boilers, steam catapult accumulators, and marine gas turbine engines must be given periodic standardized inspections per references (a), (b) chapters 22, 233 and 234, (e), and (f) respectively. Technical authority and inspection program managers are as assigned per subparagraph 5a.

a. Inspection Requirements. All diesel engines (to include main propulsion, ship service, and emergency diesel generators), conventional steam generating plants (to include main propulsion, auxiliary boilers, and waste heat boilers), steam catapult accumulators, re-boilers, marine gas turbine engines in U.S. Navy ships, submarines, small boats, and craft and engineering school hot plant training sites must be inspected with the requirements and periodicities of references (a) through (f), as applicable. Additionally, these components must be inspected as directed by the respective Commander, Naval Sea Systems Command (COMNAVSEASYSYSCOM) technical warrant holder

identified in subparagraph 5a. Material condition of inspected equipment must be formally documented in the respective inspection and repair management information systems.

b. Specific Requirements. Standardized inspection procedures and criteria must be followed. Steam generating plant inspectors are to follow inspection guidance provided by references (a), (b) chapter 221, (c), and (d). Diesel engine inspectors are to follow inspection guidance provided by references (a), (b) chapter 233, and (f). Marine gas turbine inspectors are to follow inspection guidance issued by the program manager, via gas turbine bulletins, and references (a) and (b) chapter 234.

c. Inspector Training and Certification. All inspector candidates (military personnel, civil service personnel, and civilian contractors working for government agencies) must satisfactorily complete the requirements detailed in references (b) chapters 221, 233, and 234 through (f).

d. All Candidates Must

(1) Be physically capable of entering confined areas such as boiler steam and water drums, uptakes, stacks, engine enclosures and plenums.

(2) Satisfactorily complete prerequisite courses listed in reference (g) prior to commencement of the certification course.

(3) Pass a pretest (as required) developed by the appropriate Naval Education and Training Command (NETC) learning center administered by a type commander (TYCOM) designated representative, within 1 year prior to the commencement of the certification course. A retest may not be administered within 6 months of a prior test failure. The inspector school must provide requested copies of the pretest to the TYCOM for administration, grade the returned tests, and provide the test results to the TYCOM. (Not required for steam generating plant inspector civil service or civilian candidates).

(4) Once certified, all inspectors must maintain up to date knowledge of approved inspection practices and policies. Certification will be maintained for those inspectors who comply

with the requirements of references (b) through (f), by the respective COMNAVSEASYSCOM technical warrant holders identified in subparagraph 5a.

(5) Steam generating plant inspectors and steam system subject matter experts (SME) must meet all requirements with regards to certifications, including maintaining certifications, as specified in reference (e).

## 5. Responsibilities and Actions

a. COMNAVSEASYSCOM. COMNAVSEASYSCOM is assigned overall technical authority for inspections and inspection programs, including inspector and SME certification, specifically, COMNAVSEASYSCOM 05Z1 technical warrant holders for the respective equipment. COMNAVSEASYSCOM has assigned NAVSURFWARCEN SHIPSYSENGSTA technical branches as steam generating plant inspector (Code 922), diesel engine inspector (Code 931), and marine gas turbine inspector (Code 933) program managers.

(1) Publish and maintain COMNAVSEASYSCOM requirements and associated documentation for the Propulsion and Auxiliary Plant Inspection and Inspector Certification Program. This includes definitions of inspection types and periodicities; the inspector and SME (as applicable) certification, recertification and reinstatement process; and the responsibilities of commands operating, maintaining, repairing and overhauling equipment defined in this instruction.

(2) Provide funding to NAVSURFWARCEN SHIPSYSENGSTA for responsibilities listed in subparagraph 5b with support from associated platform program executive offices and program managers ships.

### b. NAVSURFWARCEN SHIPSYSENGSTA Program Managers

(1) Provide overall management of the diesel engine inspector, steam generating plant inspector, and marine gas turbine inspector programs.

(2) Provide technical support to the semi-annual training continuum events. Training continuums allow for technical interface among fleet units; COMNAVSEASYSCOM and field

activities; regional maintenance centers; ship support activities; and other activities with inspection and maintenance responsibilities. Training continuums are to include discussion of current inspection criteria, procedures, and problems.

(3) Conduct technical audits of the inspector training courses at a periodicity not to exceed 3 years or when overarching guidance is updated or changed to ensure technical accuracy and adequacy.

(4) Provide technical management of the inspector programs. Ensure that the required technical documentation to support the program is maintained current. Establish and monitor the requirements and standards for all diesel engines, steam generating plant, steam catapult accumulator, and marine gas turbine engine inspections required by this instruction.

(5) Provide program management of the inspection and associated repair management information database system.

(6) Maintain the primary database of all certified inspectors by name, rating, duty station or place of employment, date of certification, and expiration date of certification.

(7) Revoke inspector certification and initiate action to decertify inspectors who fail to comply with the requirements.

(8) Ensure that the requirements for inspector certification, re-certification, and certification extensions are met prior to final approval.

c. Commander, Naval Personnel Command

(1) Ensure that all enlisted personnel assigned to inspector certification instruction course billets hold the proper Navy enlisted classification (NEC), are currently certified, and have at least 3 years prior experience as an inspector.

(2) Assign sufficient numbers of qualified personnel to the inspector training courses to fulfill billet requirements.

(3) Maintain billet requisitions to current fleet manning requirements.

(4) Ensure that inspector course graduates that meet requirements are awarded the appropriate NEC.

d. Fleet Commanders and TYCOMs

(1) Identify and designate those fleet activities that have inspection responsibilities and maintain a base of certified inspectors within those activities.

(2) Review the guidelines and inspection requirements for all diesel engine, steam generating plant, and marine gas turbine engine inspections required by this instruction.

(3) Schedule and coordinate inspections required by this instruction with the appropriate technical activities.

(4) For the steam generating plant inspector program, ensure the availability of an appropriate school ship with a "D" type boiler with full automatic boiler controls system to support training.

(5) Ensure administration and control of the TYCOM administered pretest, as specified in subparagraph 4d(1).

(6) Host semi-annual inspector training continuums on an alternating coast basis.

(7) Provide and maintain for all inspections to be documented in the applicable inspection and repair management information database system.

e. NETC

(1) Be responsible for the overall training of inspectors including designation of activities authorized to conduct training.

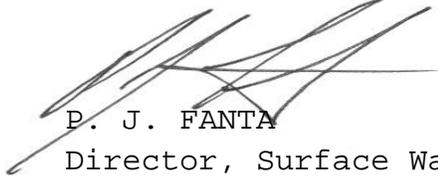
(2) Provide final approval of the training course of instruction plans, course materials, and training aids for those courses where an NETC learning center is designated curriculum control authority.

(3) Develop, maintain, and control pretests as specified in subparagraph 4d(1).

(4) Issue graduation certificates and document graduation to ensure that the NEC is awarded (for military inspectors) to those inspector candidates that successfully complete course of instruction. Copies of the appropriate paperwork must be forwarded to the appropriate TYCOM, regional maintenance centers, or ship support activity and program manager, as required.

(5) Ensure the instructor school provides requested copies of the pretest to the designated TYCOM representatives for administration, grades the returned tests, and provides the test results to the designated representatives.

9. Records Management. Records created as a result of this instruction, regardless of media and format, must be managed per Secretary of the Navy Manual 5210.1 of January 2012.



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