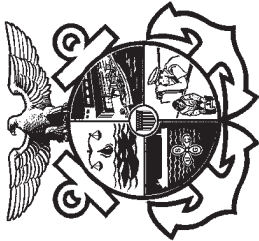


**United States Coast Guard**



**Machinery Steam Inspector  
Job Aid**

Name of Vessel	
Official Number	Activity Number
Date Completed	Class
Location	
Vessel Built in Compliance with SOLAS:    60    74    74/78    NA	
<b>Route</b>	
<input type="checkbox"/> Oceans	<input type="checkbox"/> Limited Coastwise <input type="checkbox"/> Lakes / Bays / Sounds
<input type="checkbox"/> Coastwise	<input type="checkbox"/> Great Lakes <input type="checkbox"/> Rivers
<b>Inspection Type</b>	
<input type="checkbox"/> Inspection for Certification (COI)	<input type="checkbox"/> Annual
<input type="checkbox"/> Periodic	<input type="checkbox"/> Drydocking
<b>Inspectors</b>	
1. _____	3. _____
2. _____	4. _____

## **Use of Machinery Steam Inspector (MS) Job Aid:**

This Job Aid is intended for use by qualified Coast Guard MS Marine Inspectors for use on U.S. flagged vessels during hull exams on vessels regulated under Subchapters D, H and I.

The tasks contained within this Job Aid are not intended to limit the scope or depth of inspection. A checked box should be a running record of what has been inspected and does not imply that the entire system has been inspected or that all or any items are in full compliance. This Job Aid does not constitute part of the official inspection record.

## ***When conducting a full Machinery Inspection on a subchapter D, H or I vessel, this job aid should be used in conjunction with the Machinery Inspector (MI) Job Aid.***

This document does not establish or change federal laws or regulations and references given are only general guidance to the Marine Inspector. The Marine Inspector will need to refer to other publications such as the International Maritime Organization (IMO) resolutions, U.S. Codes of Federal Regulation (CFR), USCG Navigation and Vessel Inspection Circulars (NVIC) or locally produced guidance during the course of inspection for specific regulatory references. Not all items in this Job Aid are applicable to all vessels.

**NOTE:** *Guidance on how to conduct inspections of U.S. flagged deep draft vessels can be found in MSM Volume II, Section B: Domestic Inspection Programs.*

### **Pre-inspection Items**

- Review MISLE records
- Obtain copies of forms to be issued

### **Post-inspection Items**

- Issue letters/certificates to vessel
- Complete MISLE entries within 48 hours

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**Administrative Items**

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**Section 1: Administrative Items**

**IMO Applicability Dates:**

Reference	Dates
<b>1974 SOLAS (2014 Consolidated)</b>	
Chapter (I)	All Ships
Chapter (II-1)	01 JAN 09
Chapter (II-2)	01 JUL 02
Chapter (III)	01 JUL 98
Chapters (IV-XII)	All Ships
<b>1974 SOLAS (2009 Consolidated)</b>	
Chapter (II-1)	01 JAN 09
Chapter (II-2)	01 JUL 02
Chapter (III)	01 JUL 98
<b>1974 SOLAS (2004 Consolidated)</b>	
Chapter (II-1)	01 JUL 86
Chapter (II-2)	01 JUL 02
Chapter (III)	01 JUL 98
<b>1974 SOLAS (2001 Consolidated)</b>	
Chapter (II-1)	01 JUL 86
Chapter (II-2, III)	01 JUL 98
<b>1974 SOLAS (1997 Consolidated)</b>	
Chapters (II-1, II-2 Part A, C, D, III)	01 JUL 86
Chapter (II-2 Part B)	01 OCT 94
<b>1974 SOLAS (1981 Amendments)</b>	
Chapters (II-1, II-2, III)	01 SEP 84
<b>1974 SOLAS (Unamended)</b>	25 MAY 80
<b>1960 SOLAS</b>	Prior to 25 MAY 80

**Conversions:**

<b>Distance and Energy</b>			
Kilowatts (kW)	X	1.341	= Horsepower (hp)
Feet (ft)	X	3.281	= Meters (m)
Long Ton (LT)	X	.98421	= Metric Ton (t)
<b>Liquid (NOTE: Values are approximate.)</b>			
<b>Liquid</b>	<b>bb/LT</b>	<b>m<sup>3</sup>/ft</b>	<b>bb/m<sup>3</sup></b>
Freshwater	6.40	1.00	6.29
Saltwater	6.24	.975	6.13
Heavy Oil	6.77	1.06	6.66
DFM	6.60	1.19	7.48
Lube Oil	7.66	1.20	7.54
<b>Weight</b>			
1 Long Ton	= 2240 lbs	1 Metric Ton	= 2204 lbs
1 Short Ton	= 2000 lbs	1 Cubic Foot	= 7.48 gal
1 Barrel (oil)	= 5.61 ft = 42 gal = 6.29 m <sup>3</sup>	1 psi	= .06895 Bar = 2.3106 ft of water
<b>Temperature: Fahrenheit = Celsius (°F = 9/5 °C + 32 and °C = 5/9 (°F – 32))</b>			
0	= -17.8	80	= 26.7
32	= 0	90	= 32.2
40	= 4.4	100	= 37.8
50	= 10.0	110	= 43.3
60	= 15.6	120	= 48.9
70	= 21.1	150	= 65.6
<b>Pressure: Bars = Pounds per square inch</b>			
1 Bar	= 14.5 psi	5 Bars	= 72.5 psi
2 bars	= 29.0 psi	6 Bars	= 87.0 psi
3 Bars	= 43.5 psi	7 Bars	= 101.5 psi
4 Bars	= 58.0 psi	8 Bars	= 116.0 psi
		9 Bars	= 130.5 psi
		10 Bars	= 145.0 psi











**Recommended US Vessel Deficiency Procedures:**

<b>Step</b>	<b>Action</b>				
1	Identify deficiency				
2	Inform vessel representative				
3	Record on the Deficiency Summary Worksheet (next page)				
4	If deficiency is corrected prior to end of inspection, go to step 6				
5	<p>If deficiency is unable to be corrected prior to end of inspection, issue CG-835 in accordance with the table below:</p> <table border="1"> <tr> <td> <p><b>IF deficiency:</b></p> <p>Does NOT immediately impact crew/passenger safety, hull seaworthiness or the environment, e.g.,</p> <ul style="list-style-type: none"> <li>Missing placards</li> <li>Non-metallic expansion joints if more than 10 years in service</li> </ul> <p>Allows Vessel operations to be MODIFIED to meet less stringent requirements, e.g.,</p> <ul style="list-style-type: none"> <li>Expired international certificates</li> <li>Automation defect</li> <li>Insufficient lifesaving equipment</li> </ul> </td> <td> <p><b>THEN issue CG-835:</b></p> <p>That provides a specific time for correcting deficiency, e.g.,</p> <ul style="list-style-type: none"> <li>"X" number of days</li> <li>At next drydock</li> </ul> <p>That restricts operation of vessel to meet current vessel conditions, e.g.,</p> <ul style="list-style-type: none"> <li>Reduced route</li> <li>Increased crew</li> <li>Fewer offshore workers</li> </ul> </td> </tr> <tr> <td> <p>DOES immediately impact crew/passenger safety, hull seaworthiness, or the environment and cannot be modified to meet less stringent requirements, e.g.,</p> <ul style="list-style-type: none"> <li>Missing or defective firefighting equipment</li> <li>Structural defect or damage</li> </ul> </td> <td> <p>That requires the deficiency to be corrected prior to operating vessel ("NO SAIL" item), e.g.,</p> <ul style="list-style-type: none"> <li>Prior to carrying offshore workers</li> <li>Prior to carrying cargo</li> </ul> </td> </tr> </table>	<p><b>IF deficiency:</b></p> <p>Does NOT immediately impact crew/passenger safety, hull seaworthiness or the environment, e.g.,</p> <ul style="list-style-type: none"> <li>Missing placards</li> <li>Non-metallic expansion joints if more than 10 years in service</li> </ul> <p>Allows Vessel operations to be MODIFIED to meet less stringent requirements, e.g.,</p> <ul style="list-style-type: none"> <li>Expired international certificates</li> <li>Automation defect</li> <li>Insufficient lifesaving equipment</li> </ul>	<p><b>THEN issue CG-835:</b></p> <p>That provides a specific time for correcting deficiency, e.g.,</p> <ul style="list-style-type: none"> <li>"X" number of days</li> <li>At next drydock</li> </ul> <p>That restricts operation of vessel to meet current vessel conditions, e.g.,</p> <ul style="list-style-type: none"> <li>Reduced route</li> <li>Increased crew</li> <li>Fewer offshore workers</li> </ul>	<p>DOES immediately impact crew/passenger safety, hull seaworthiness, or the environment and cannot be modified to meet less stringent requirements, e.g.,</p> <ul style="list-style-type: none"> <li>Missing or defective firefighting equipment</li> <li>Structural defect or damage</li> </ul>	<p>That requires the deficiency to be corrected prior to operating vessel ("NO SAIL" item), e.g.,</p> <ul style="list-style-type: none"> <li>Prior to carrying offshore workers</li> <li>Prior to carrying cargo</li> </ul>
<p><b>IF deficiency:</b></p> <p>Does NOT immediately impact crew/passenger safety, hull seaworthiness or the environment, e.g.,</p> <ul style="list-style-type: none"> <li>Missing placards</li> <li>Non-metallic expansion joints if more than 10 years in service</li> </ul> <p>Allows Vessel operations to be MODIFIED to meet less stringent requirements, e.g.,</p> <ul style="list-style-type: none"> <li>Expired international certificates</li> <li>Automation defect</li> <li>Insufficient lifesaving equipment</li> </ul>	<p><b>THEN issue CG-835:</b></p> <p>That provides a specific time for correcting deficiency, e.g.,</p> <ul style="list-style-type: none"> <li>"X" number of days</li> <li>At next drydock</li> </ul> <p>That restricts operation of vessel to meet current vessel conditions, e.g.,</p> <ul style="list-style-type: none"> <li>Reduced route</li> <li>Increased crew</li> <li>Fewer offshore workers</li> </ul>				
<p>DOES immediately impact crew/passenger safety, hull seaworthiness, or the environment and cannot be modified to meet less stringent requirements, e.g.,</p> <ul style="list-style-type: none"> <li>Missing or defective firefighting equipment</li> <li>Structural defect or damage</li> </ul>	<p>That requires the deficiency to be corrected prior to operating vessel ("NO SAIL" item), e.g.,</p> <ul style="list-style-type: none"> <li>Prior to carrying offshore workers</li> <li>Prior to carrying cargo</li> </ul>				
6	Enter CG-835 data in MISLE				

**Certificates and Documents**

Endors. Date	Exp. Date	Issue Date	Port Issued/ Country	ID #	Issuing Agency	Certificate of Documentation	Classification Document	Certificate of Financial Responsibility (COFR)	FCC Station License	FCC Safety Certificate	FCC Marine Operator's Permit
					USCG	<input type="checkbox"/> No Change	<input type="checkbox"/> No Change	<input type="checkbox"/> No Change	<input type="checkbox"/> No Change	<input type="checkbox"/> No Change	<input type="checkbox"/> No Change
					USCG	<input type="checkbox"/> No Change	<input type="checkbox"/> No Change	<input type="checkbox"/> No Change	<input type="checkbox"/> No Change	<input type="checkbox"/> No Change	<input type="checkbox"/> No Change
					USCG	<input type="checkbox"/> No Change	<input type="checkbox"/> No Change	<input type="checkbox"/> No Change	<input type="checkbox"/> No Change	<input type="checkbox"/> No Change	<input type="checkbox"/> No Change
					USCG	<input type="checkbox"/> No Change	<input type="checkbox"/> No Change	<input type="checkbox"/> No Change	<input type="checkbox"/> No Change	<input type="checkbox"/> No Change	<input type="checkbox"/> No Change

Name of Certificate	Issuing Agency	ID #	Port Issued/ Country	Issue Date	Exp. Date	Endors. Date
Cargo Ship Safety Construction						
Cargo Ship Safety Equipment	USCG					
Cargo Ship Safety Radio	USCG					
International Load Line (ILLC)						
International Tonnage (ITC)						
ISM Document of Compliance (DOC)						
ISM Safety Management (SMC)						

7

Vessel Layout:



Appendices



- 19. Witness testing of Periodic Safety Test Procedures (PSTP)
  - Verify PSTP is approved and "hard copy" presence 46 CFR 61.40-1(a) 46 CFR 62.25-25
  - Verify PSTP match equipment installed 46 CFR 61.40-3
  - Verify no manual override devices not approved in test procedures 46 CFR 61.40-6
  - Verify operation of alarms, shutdowns, controls and internal communications (engineer assistance), IAW approved PSTP 46 CFR 61.40-6
  - Verify corrections to PSTP are completed 46 CFR 61.40-10

### Follow Up Action

- 20. Document boiler inspection information in MISLE
  - Update safety valve setting 46 CFR 61.01-20
  - Update safety valve inspection interval 46 CFR 61.05-10a
  - Update fireside inspection intervals 46 CFR 61.05-10a
  - Update waterside inspection intervals 46 CFR 61.05-10a
  - Update bolt and stud inspection intervals 46 CFR 61.05-10a
  - Update mounting inspection intervals 46 CFR 61.05-10a
  - Update steam gauge inspection intervals 46 CFR 61.05-10a

Endors. Date	Exp. Date	Issue Date	Port Issued/ Country	ID #	Issuing Agency	Name of Certificate
						International Oil Pollution Prevention (IOPP) <input type="checkbox"/> No Change
						International Sewage Pollution Prevention (ISPP) <input type="checkbox"/> No Change
						International Air Pollution Prevention (IAPP) <input type="checkbox"/> No Change

## Section 2: Inspection Items

### Pre-Inspection

- |   |   |  |
|---|---|--|
| <input type="checkbox"/> 1. Research vessel details in Marine Information for Safety and Law Enforcement (MISLE) information system | <ul style="list-style-type: none"> <li>• Hydrostatic inspection dates (boilers/main steam piping) 46 CFR 61.05-10(a)</li> <li>• Fireside/waterside inspection dates 46 CFR 61.05-10(a)</li> <li>• Safety valve settings and inspection dates 46 CFR 61.05-10(a)</li> <li>• Mounts inspection dates 46 CFR 61.05-10(a)</li> <li>• Valve inspection dates 46 CFR 61.05-10(a)</li> <li>• Stud/bolt inspection dates 46 CFR 61.05-10(a)</li> <li>• Gauge calibration dates 46 CFR 61.05-10(a)</li> <li>• Non-metallic expansion joint replacement 46 CFR 61.15.12(b)</li> </ul> | <ul style="list-style-type: none"> <li>• Record lifting and setting pressures 46 CFR 52.01-120(d)(1) ASME Code PG72.3</li> <li>• Verify lifting and setting are within range 46 CFR 52.01-120(d)(1) ASME Code PG72.3</li> <li>• Witness test of hand relieving gear (easing gear) 46 CFR 52.01-120(d)(2)</li> <li>• Verify third party repair facility certificate NVIC 01-71</li> </ul>   |
| <input type="checkbox"/> 2. Coordinate inspection with vessel's representative  | <ul style="list-style-type: none"> <li>• Discuss inspection expectations 46 CFR 61.05-10</li> <li>• Review outstanding conditions from third party reports 46 CFR 61.05-10</li> <li>• Determine turbine feedwater overspeed testing process MSM II/B.1.H.2</li> <li>• Review repairs and alterations 46 CFR 59.01-5</li> <li>• Ensure preparations for boiler inspection 46 CFR 61.05-5</li> </ul>  | <ul style="list-style-type: none"> <li>• Verify operation of service and transfer pumps 46 CFR 56.50-65(b)(1)</li> <li>• Verify service and transfer pump relief valves locations and 5 year test 46 CFR 61.20-3(a) 46 CFR 56.50-65(c)</li> <li>• Witness remote shutdown of service and transfer pumps 46 CFR 58.01-25</li> <li>• Verify location and markings at remote shutdown station 46 CFR 58.01-25</li> <li>• Verify no non-metallic material installed 46 CFR 56.50-65(a)</li> <li>• Verify presence and condition of wrap around deflector for fuel piping on burner assembly 46 CFR 56.50-65(c)</li> <li>• Examine drip pans 46 CFR 56.50-60(k) 46 CFR 56.50-65(b)(3)</li> <li>• Verify operation of fuel oil heaters 46 CFR 56.50-65(b)(1)</li> <li>• Verify operation of remote fuel tank shutoff valves 46 CFR 56.50-1</li> <li>• Examine torch pot arrangements MSM II/B.1.N.5.c</li> </ul> |
| <input type="checkbox"/> 3. Mitigate potential hazards encountered during an inspection   | <ul style="list-style-type: none"> <li>• Recognize potential hazards encountered during inspection NFPA 306 NFPA 350</li> <li>• Determine confined spaces MSM I/10 App.A NFPA 350</li> <li>• Determine if exam scope will require Marine Chemist certification for space entry 29 CFR 1915, Part B MSM II/A.5.H</li> <li>• Verify Marine Chemist has been scheduled for exam MSM I/10 App. A</li> <li>• Prepare necessary personal protective equipment MSM I/10 App. A MSM I/8.A.3.</li> </ul>   | <ul style="list-style-type: none"> <li>• Inspect fuel oil service and transfer system 46 CFR 56.50-65(b)(1)</li> <li>• Inspect forced draft fans 46 CFR 61.01-1(b)</li> <li>• Examine mountings 46 CFR 61.01-1(b)</li> <li>• Verify operation of local control of louvres 46 CFR 61.01-1(b)</li> <li>• Witness operational test of remote shut downs 46 CFR 58.01-25</li> <li>• Verify location and markings at remote shutdown station 46 CFR 58.01-25</li> </ul>   |

- Review CG policy for when to leave a space due to hazardous condition

## Logs & Manuals

- 4. Review vessel's Boiler Manual
  - Verify MAWP/design pressure 46 CFR 61.01-1  
46 CFR 54.10-20
  - Verify safety valve setting 46 CFR 61.01-1  
Boiler Manual
  - Verify superheater pressure drop 46 CFR 52.01-120(b)(2)  
Boiler Manual
  - Verify maximum steam produced 46 CFR 61.01-1  
Boiler Manual

- 5. Review Turbine Manual
  - Verify overspeed testing procedures 46 CFR 61.01-1  
MSM II/B.1.H.1
  - Verify low lube oil testing procedures 46 CFR 61.01-1  
MSM II/B.1.H.1

## Machinery Equipment

- 6. Inspect boiler valves
  - Examine seats 46 CFR 61.05-15  
MSM II/B.1.G.6
  - Examine valve assembly 46 CFR 61.05-15  
MSM II/B.1.G.6
  - Examine stem 46 CFR 61.05-15  
MSM II/B.1.G.6
  - Verify valve bypass 46 CFR 56.50-15(c)
  - Verify availability of replacement valves 46 CFR 56.01-02

- 7. Inspect mounts
  - Identify mounts to be removed for inspection 46 CFR 61.05-15  
MSM II/B.1.G.6
  - Examine spool piece(s) 46 CFR 61.05-15  
MSM II/B.1.G.7
  - Examine flanges 46 CFR 61.05-15  
MSM II/B.1.G.6

- 14. Inspect feedwater system
  - Examine deaerating feedtank (DC heater) 46 CFR 56.50-30 (c)  
46 CFR 61.10-5
  - Examine feedwater pump and piping 46 CFR 61.20-3(a)  
46 CFR 56.01-5
  - Verify operation of valves 46 CFR 56.50-30(b)
  - Verify overspeed trip setting 46 CFR 58.05-1  
ABS 4/2/4 1.3.3
  - Witness manual overspeed trip 46 CFR 61.20-3(a)  
ABS 4/2/4.7.7
  - Examine columns, gage glasses and gage cocks 46 CFR 61.05-15(e)
  - Verify presence and operation of gauges 46 CFR 56.50-10

- 15. Inspect main steam turbine
  - Examine mounting bolts 46 CFR 58.05-1  
MSM II/B.1.H.1
  - Witness overspeed test 46 CFR 62.25-15  
MSM II/B.1.H.1
  - Verify automatic operation of main lube oil service pumps 46 CFR 61.20-3(a)
  - Examine condition of low pressure sentinel valve 46 CFR 62.35-50
  - Verify operation of low lube oil pressure alarm 46 CFR 61.40-6 & 62.35-50  
MSM II/B.1.H.1
  - Verify operation if low lube oil shutdown 46 CFR 56.50-80(g)  
46 CFR 62.35-50 note 4
  - Witness operation of jacking gear indicating lights 46 CFR 62.25-1(a)(4) & (5)  
ABS 4/2/4 7.9
  - Verify operation of jacking gear interlock 46 CFR 62.25-5(a)
  - Verify operation of ahead and astern throttle valves MSM II/B.1.F.4.b

- 16. Inspect lifting and reseating of safety valves
  - Record data from safety relief valves circular 46 CFR 54.15-1  
ASME Code UG-129
  - Verify presence of gags 46 CFR 52.01-120(a)(9)
  - Witness lifting and setting of valves 46 CFR 61.01-1  
46 CFR 61.05-20

<input type="checkbox"/>	<ul style="list-style-type: none"> <li>Examine piping</li> </ul>	46 CFR 61.05-15 MSM II/B.1.G.6	<ul style="list-style-type: none"> <li>Examine material condition of wind box compartment</li> </ul>	46 CFR 61.05-10
<input type="checkbox"/>	<ul style="list-style-type: none"> <li>Inspect studs, bolts and nuts</li> </ul>		<ul style="list-style-type: none"> <li>11. Inspect boiler waterside</li> </ul>	
<input type="checkbox"/>	<ul style="list-style-type: none"> <li>Verify correct material used</li> </ul>	46 CFR 61.05-15 MSM II/B.1.G.6	<ul style="list-style-type: none"> <li>Verify ready for inspection</li> </ul>	46 CFR 61.05-5 MSM II/B.1.G.3.d & .e
<input type="checkbox"/>	<ul style="list-style-type: none"> <li>Verify material condition</li> </ul>	46 CFR 61.05-15 MSM II/B.1.G.6	<ul style="list-style-type: none"> <li>Examine external casing/doors</li> <li>Verify amount of handholds plates for removal</li> </ul>	46 CFR 61.05-10 MSM II/B.1.G.3.g
<input type="checkbox"/>	<ul style="list-style-type: none"> <li>Witness hydrostatic test of boiler and main steam piping</li> </ul>		<ul style="list-style-type: none"> <li>Examine steam and water drum internal</li> <li>Examine water drum (mud) internal</li> </ul>	46 CFR 61.05-10 MSM II/B.1.G.3 & .4
<input type="checkbox"/>	<ul style="list-style-type: none"> <li>Verify Max Allowable Working Pressure (MAWP)</li> </ul>	46 CFR 54.10-20	<ul style="list-style-type: none"> <li>Examine headers</li> </ul>	46 CFR 61.05-10
<input type="checkbox"/>	<ul style="list-style-type: none"> <li>Verify testing pressure</li> </ul>	46 CFR 61.15-5	<ul style="list-style-type: none"> <li>Examine blowoff valves and piping</li> </ul>	46 CFR 61.05-10
<input type="checkbox"/>	<ul style="list-style-type: none"> <li>Verify testing pressure time</li> </ul>	46 CFR 61.05-10(c)	<ul style="list-style-type: none"> <li>Examine lagging/insulation on piping</li> </ul>	46 CFR 56.50-40 46 CFR 56.50-1(k) 46 CFR 56.50-15(h)(3)
<input type="checkbox"/>	<ul style="list-style-type: none"> <li>Examine externally (headers/vestibules)</li> </ul>	46 CFR 61.15-5(b)	<ul style="list-style-type: none"> <li>Examine relief valve escape piping</li> </ul>	46 CFR 56.50-25
<input type="checkbox"/>	<ul style="list-style-type: none"> <li>Examine internally (furnace/vestibules)</li> </ul>	46 CFR 61.10-5(b)	<ul style="list-style-type: none"> <li>Verify independent means for checking water level</li> </ul>	46 CFR 52.01-110
<input type="checkbox"/>	<ul style="list-style-type: none"> <li>Verify safety valves are gagged</li> </ul>	46 CFR 52.01-120	<ul style="list-style-type: none"> <li>12. Inspect boiler gauges</li> </ul>	
<input type="checkbox"/>	<ul style="list-style-type: none"> <li>Witness safety valve operation</li> </ul>	46 CFR 61.05-20	<ul style="list-style-type: none"> <li>Verify operation</li> </ul>	46 CFR 61.05-15(f)
<input type="checkbox"/>	<ul style="list-style-type: none"> <li>Verify size of piping to be tested</li> </ul>	46 CFR 61.15(c)	<ul style="list-style-type: none"> <li>Verify accuracy</li> </ul>	MSM II/B.1.G.6.e
<input type="checkbox"/>	<ul style="list-style-type: none"> <li>Verify test on piping with covering(s)</li> </ul>	46 CFR 61.15(b)		46 CFR 61.05-15(f)
<input type="checkbox"/>	<ul style="list-style-type: none"> <li>Inspect boiler fireside</li> </ul>	46 CFR 61.15(a)	<ul style="list-style-type: none"> <li>13. Inspect main/auxiliary condensate and sea water circulating systems</li> </ul>	MSM II/B.1.G.6.e
<input type="checkbox"/>	<ul style="list-style-type: none"> <li>Verify ready for inspection</li> </ul>	46 CFR 61.05-5 MSM II/B.1.G.3.b	<ul style="list-style-type: none"> <li>Examine sea water piping</li> </ul>	46 CFR 56.50-95
<input type="checkbox"/>	<ul style="list-style-type: none"> <li>Examine refractory/corbel</li> </ul>	46 CFR 61.05-10 MSM II/B.1.G.3.4	<ul style="list-style-type: none"> <li>Verify operation of circulating pumps</li> </ul>	46 CFR 56.50-45
<input type="checkbox"/>	<ul style="list-style-type: none"> <li>Examine water wall tubes</li> </ul>	46 CFR 61.05-10 MSM II/B.1.G.3	<ul style="list-style-type: none"> <li>Verify operation of condensate pumps</li> </ul>	46 CFR 56.50-35
<input type="checkbox"/>	<ul style="list-style-type: none"> <li>Examine screen tubes</li> </ul>	46 CFR 61.05-10 MSM II/B.1.G.3	<ul style="list-style-type: none"> <li>Verify operation of emergency bilge suction valve</li> </ul>	46 CFR 56.50-45(f)
<input type="checkbox"/>	<ul style="list-style-type: none"> <li>Examine generating tubes</li> </ul>	46 CFR 61.05-10 MSM II/B.1.G.3	<ul style="list-style-type: none"> <li>Examine condenser waterboxes</li> </ul>	MSM II/B.3.F
<input type="checkbox"/>	<ul style="list-style-type: none"> <li>Examine superheater headers</li> </ul>	46 CFR 61.05-10 MSM II/B.1.G.3	<ul style="list-style-type: none"> <li>Verify operational safety relief valves test</li> </ul>	46 CFR 61.05-20
<input type="checkbox"/>	<ul style="list-style-type: none"> <li>Examine uptakes and air pre-heater tubes</li> </ul>	46 CFR 61.05-10	<ul style="list-style-type: none"> <li>Examine non-metallic expansion joint(s)</li> </ul>	46 CFR 61.15-12(a)
<input type="checkbox"/>	<ul style="list-style-type: none"> <li>Examine economizer/airheater</li> </ul>	46 CFR 61.05-10		