

TABLE 2 TO § 11.920—SUBJECTS FOR MODU LICENSES—Continued

Examination topics	1	2	3	4	5	6	7
Hazardous materials/dangerous goods precautions .....	X	X	X	X	X	X	
Mooring equipment .....	X	X	X	X	X	X	
Crane use procedures and inspections .....	X	X	X	X	X	X	
Medical care:							
Knowledge and use of:							
First aid .....	X	X	X	X	X	X	X
First response medical action .....	X	X	X	X	X	X	X
Maritime law and regulation:							
National maritime law:							
Certification and documentation of vessels .....	X	X	X	X	X		
Ship sanitation .....	X	X	X	X	X		
Regulations for vessel inspection .....	X	X	X	X	X		
Pollution prevention regulations .....	X	X	X	X	X	X	X
Credentialing regulations .....	X	X	X	X	X		
Rules and regulations for MODUs .....	X	X	X	X	X	X	
International Maritime law:							
International Maritime Organization .....	X	X	X	X	X		
International Convention on Load Lines .....	X	X	X	X			X
MARPOL 73/78 .....	X	X	X	X	X		
Personnel Management and Training:							
Ship's business including:							
Required logs and recordkeeping .....	X	X	X	X	X	X	
Casualty reports and records .....	X	X	X	X	X		
Communications:							
Radio communications and FCC permit .....	X	X	X	X	X	X	
Radiotelephone procedures .....	X	X	X	X	X	X	
Lifesaving/Survival:							
Lifesaving appliance operation (launching, boat handling) ..	X	X	X	X	X	X	X
Procedures/rules for lifeboats, survival suits, personal flotation devices (PFDs), life rafts and emergency signals .....	X	X	X	X	X	X	X
Emergency radio transmissions .....	X	X	X	X	X	X	X
Survival at sea .....	X	X	X	X	X	X	X

### § 11.950 Examination subjects for engineer officer endorsements.

Table 1 to § 11.950 gives the codes used in Table 2 to § 11.950 for engineer officer endorsements. Table 2 to § 11.950 indicates the examination subjects for each endorsement by the code number.

TABLE 1 TO § 11.950—CODES FOR ENGINEER OFFICER ENDORSEMENTS

1. First assistant engineer (unlimited).
2. Third assistant engineer (unlimited).
3. Chief engineer (limited).

TABLE 1 TO § 11.950—CODES FOR ENGINEER OFFICER ENDORSEMENTS—Continued

4. Assistant engineer (limited).
5. Designated duty engineer (unlimited).
6. Designated duty engineer (4,000 HP).
7. Designated duty engineer (1,000 HP).
8. Chief engineer (uninspected fishing industry vessels).
9. Assistant engineer (uninspected fishing industry vessels).
10. Chief engineer (MODU).
11. Assistant engineer (MODU).
12. Chief engineer (OSV unlimited).
13. Assistant engineer (OSV unlimited).
14. Chief engineer (OSV 4,000 HP).
15. Assistant engineer (OSV 4,000 HP).

Table 2 to § 11.950 -- Subjects for engineer officer endorsements

	1			2			3			4			5			6		
	S	M	G	S	M	G	S	M	G	S	M	G	S	M	G	S	M	G
General Subjects:																		
Prints and tables	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X
Hand tools				X	X	X				X	X	X	X	X	X	X	X	X
Pipes, fittings, and valves				X	X	X				X	X	X	X	X	X	X	X	X
Hydraulics	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X
Materials science				X	X	X				X	X	X						
Bilge systems	X	X	X	X	X	X				X	X	X	X	X	X	X	X	X
Oil water separators	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X
Sanitary/sewage systems	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X
Freshwater systems	X	X	X	X	X	X				X	X	X	X	X	X	X	X	X
Lubricants				X	X	X				X	X	X	X	X	X	X	X	X
Lubrication	X	X	X	X	X	X				X	X	X	X	X	X	X	X	X
Automation systems	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X
Control systems	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X
Propellers/shafting systems	X	X	X	X	X	X				X	X	X	X	X	X	X	X	X
Machine shop				X	X	X				X	X	X				X	X	X
Disilling systems	X	X	X	X	X	X				X	X	X	X	X	X			
Pumps				X	X	X				X	X	X	X	X	X	X	X	X
Compressors				X	X	X				X	X	X	X	X	X	X	X	X
Administration	X	X	X				X	X	X				X	X	X	X	X	X
Bearings	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X
Governors	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X
Cooling systems	X	X	X	X	X	X				X	X	X	X	X	X	X	X	X
Instruments				X	X	X				X	X	X	X	X	X	X	X	X
Ship construction and repair				X	X	X				X	X	X	X	X	X	X	X	X
Steering systems	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X

	1			2			3			4			5			6		
	S	M	G	S	M	G	S	M	G	S	M	G	S	M	G	S	M	G
Deck machinery	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X
Ventilation systems	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X
Thermodynamics				X	X	X				X	X	X	X	X	X			
Heat exchangers				X	X	X				X	X	X	X	X	X			
Watch duties				X	X	X				X	X	X						
International rules and regulations				X	X	X				X	X	X	X	X	X			
Refrigeration and air conditioning:																		
Theory				X	X	X				X	X	X	X	X	X	X	X	X
Air conditioning systems	X	X	X	X	X	X				X	X	X	X	X	X	X	X	X
Refrigeration systems	X	X	X	X	X	X				X	X	X	X	X	X	X	X	X
Control systems	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X
Instruments-gauges				X	X	X				X	X	X	X	X	X	X	X	X
Safety	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X
Casualty control	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X
Electricity, electronics and control systems:																		
Theory				X	X	X				X	X	X	X	X	X	X	X	X
General maintenance				X	X	X				X	X	X	X	X	X	X	X	X
Generators				X	X	X				X	X	X	X	X	X	X	X	X
Motors				X	X	X				X	X	X	X	X	X	X	X	X
Motor controllers	X	X	X	X	X	X				X	X	X	X	X	X	X	X	X
Propulsion systems	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X
Distribution systems	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X
Electronic systems	X	X	X	X	X	X				X	X	X	X	X	X	X	X	X
Batteries				X	X	X				X	X	X	X	X	X	X	X	X
Communications				X	X	X				X	X	X	X	X	X	X	X	X
Safety	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X
Casualty control	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X
Troubleshooting	X	X	X				X	X	X				X	X	X	X	X	X

	1			2			3			4			5			6		
	S	M	G	S	M	G	S	M	G	S	M	G	S	M	G	S	M	G
High voltage systems	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X
Computers and networks	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X
Bridge navigation equipment	X	X	X				X	X	X									
Steam Generators:																		
Steam-theory				X	X					X	X					X		
Main boilers	X			X	X		X			X	X		X	X		X		
Auxiliary boilers	X	X	X	X	X	X				X	X	X	X	X	X	X	X	X
Feedwater systems	X	X	X	X	X	X				X	X	X	X	X	X	X	X	X
Condensate systems	X	X	X	X	X	X				X	X	X	X	X	X	X	X	X
Recovery systems	X	X	X	X	X	X				X	X	X	X	X	X	X	X	X
Fuel	X			X	X		X			X			X			X		
Main fuel systems	X			X	X		X			X			X			X		
Boiler water chemistry	X			X	X		X			X			X			X		
Control systems	X			X	X		X			X			X			X		
Automation systems	X			X	X		X			X			X			X		
Safety	X			X	X		X			X			X			X		
Casualty control	X			X	X		X			X			X			X		
Steam engines:																		
Main turbines	X			X	X		X			X			X			X		
Auxiliary turbines	X	X		X	X		X			X	X		X	X		X		
Governor systems	X			X	X		X			X	X		X	X		X		
Control systems	X			X	X		X			X	X		X	X		X		
Automation systems	X			X	X		X			X	X		X	X		X		
Lubrication systems	X			X	X		X			X	X		X	X		X		
Drive systems	X			X	X		X			X	X		X	X		X		
Auxiliary diesels	X			X	X		X			X	X		X	X		X		
Safety	X			X	X		X			X	X		X	X		X		
Casualty control	X			X	X		X			X	X		X	X		X		
Motor propulsion:																		
Fundamentals					X					X				X			X	

	1			2			3			4			5			6		
	S	M	G	S	M	G	S	M	G	S	M	G	S	M	G	S	M	G
Main engines		X			X			X			X			X			X	
Auxiliary engines		X			X			X			X			X			X	
Starting systems		X			X			X			X			X			X	
Lubrication systems		X			X			X			X			X			X	
Fuel		X			X			X			X			X			X	
Fuel systems		X			X			X			X			X			X	
Fuel injection systems		X			X			X			X			X			X	
Intake systems					X						X						X	
Exhaust systems					X						X						X	
Cooling systems					X						X						X	
Air-charging systems		X			X			X			X			X			X	
Drive systems					X						X			X			X	
Control systems		X			X			X			X			X			X	
Automation systems		X			X			X			X			X			X	
Governors		X			X			X			X			X			X	
Steam systems		X			X			X			X			X			X	
Water chemistry		X			X			X			X			X			X	
Safety		X			X			X			X			X			X	
Casualty control		X			X			X			X			X			X	
Safety:																		
Fire theory	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X
Fire prevention	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X
Fire fighting	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X
Flooding	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X
Dewatering	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X
Stability and trim	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X
Damage control	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X
Emergency equipment and lifesaving appliances.																		
General safety	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X
Hazardous materials	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X

	1			2			3			4			5			6		
	S	M	G	S	M	G	S	M	G	S	M	G	S	M	G	S	M	G
Pollution prevention	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X
Inspections and surveys	X	X	X				X	X	X				X	X	X	X	X	X
U.S. rules and regulations	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X
Gas Turbines																		
Configurations						X						X				X		X
Fundamentals						X						X				X		X
Thermo-dynamics			X			X			X			X				X		X
Construction						X			X			X				X		X
Operating parameters			X			X						X				X		X
Start systems						X						X				X		X
Lubrication systems			X			X			X			X				X		X
Fuel systems			X			X			X			X				X		X
Drive systems			X			X			X			X				X		X
Bleed air systems						X			X			X				X		X
Intake and exhaust systems						X			X			X				X		X
Instrumentation and controls			X			X			X			X				X		X
Maintenance			X			X			X			X				X		X
Inspection			X			X			X			X				X		X
Troubleshooting			X			X			X			X				X		X
Casualty control			X			X			X			X				X		X
Management level																		
Management skills	X	X	X				X	X	X									
Crisis	X	X	X				X	X	X									
management																		
Shipyard	X	X	X				X	X	X									
Inspections-	X	X	X				X	X	X									
surveys							X	X	X									
Vessel layup	X	X	X				X	X	X									
Employee	X	X	X				X	X	X									
familiarization																		
Operational planning	X	X	X				X	X	X									

	1			2			3			4			5			6		
	S	M	G	S	M	G	S	M	G	S	M	G	S	M	G	S	M	G
Assessing competency	X	X	X				X	X	X									
Management practices	X	X	X				X	X	X									
Arbitration	X	X	X				X	X	X									
Internal documents	X	X	X				X	X	X									
International laws-conventions	X	X	X				X	X	X									
Technical analysis	X	X	X				X	X	X									
Maintenance systems	X	X	X				X	X	X									
Troubleshooting	X	X	X				X	X	X									
Codes and regulations	X	X	X				X	X	X									

Note: Numbers on the top row of this table represent endorsement titles found in table 1 to 11.950

S - Steam propulsion  
M - Motor propulsion  
G - Gas turbine propulsion

Table 3 to § 11.950 -- Subjects for Engineer Officer Endorsements

	7			8			9			10			11			12			13			14			15		
	S	M	G	S	M	S	S	M	S	S	M	S	S	M	S	S	M	S	M	S	S	M	S	M	S		
General Subjects:																											
Prints and tables	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X		
Hand tools																											
Pipes, fittings, and valves																											
Hydraulics	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X		
Materials science																											
Bilge systems	X	X	X	X		X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X		
Oil water separators	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X		
Sanitary/sewage systems	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X		
Freshwater systems	X	X	X				X	X					X	X					X	X			X	X	X		
Lubricants	X	X	X				X	X					X	X					X	X				X	X		
Lubrication	X	X	X				X	X					X	X					X	X				X	X		
Automation systems	X	X	X	X	X								X	X	X	X	X	X	X	X			X	X	X		
Control systems	X	X	X	X	X								X	X	X	X	X	X	X	X			X	X	X		
Propellers/shafting systems	X	X	X				X	X					X	X					X	X				X	X		
Machine shop	X	X	X				X	X					X	X					X	X				X	X		
Distilling systems													X	X													
Pumps	X	X	X				X	X	X	X	X	X	X	X					X	X			X	X	X		
Compressors	X	X	X				X	X					X	X					X	X				X	X		
Administration	X	X	X	X	X								X	X									X	X	X		
Bearings	X	X	X	X	X		X	X	X	X	X	X	X	X	X	X	X	X	X	X			X	X	X		
Governors	X	X	X	X	X		X	X	X	X	X	X	X	X	X	X	X	X	X	X			X	X	X		
Cooling systems	X	X	X				X	X					X	X					X	X				X	X		
Instruments	X	X	X				X	X					X	X					X	X				X	X		
Ship construction and repair	X	X	X	X	X								X	X	X	X	X	X	X	X			X	X	X		
Steering systems	X	X	X	X	X								X	X	X	X	X	X	X	X			X	X	X		



	7			8			9			10			11			12			13			14			15		
	S	M	G	S	M	S	S	M	S	S	M	S	S	M	S	S	M	S	S	M	S	S	M	S	M		
Deck machinery	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X		
Ventilation systems	X	X	X																								
Thermodynamics																											
Heat exchangers	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X		
Watch duties				X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X		
International rules and regulations							X	X																			
Refrigeration and air conditioning:																											
Theory	X	X	X				X	X				X	X							X	X				X		
Air conditioning systems	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X		
Refrigeration systems	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X		
Control systems	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X		
Instruments-gauges	X	X					X	X				X	X						X	X				X	X		
Safety	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X		
Casualty control	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X		
Electricity, electronics and control systems:																											
Theory	X	X	X				X	X				X	X						X	X				X	X		
General maintenance	X	X	X				X	X				X	X						X	X				X	X		
Generators	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X		
Motors	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X		
Motor controllers	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X		
Propulsion	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X		
systems																											
Distribution	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X		
systems																											
Electronic systems	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X		
Batteries	X	X	X				X	X				X	X						X	X				X	X		
Communications	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X		
Safety	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X		
Casualty control	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X		
Troubleshooting	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X		

	7		8		9		10		11		12		13		14		15	
	S	M	G	S	M	S	S	M	S	M	S	M	S	M	S	M	S	M
High voltage systems							X	X			X	X			X	X		
Computers and networks							X	X			X	X			X	X		
Bridge navigation equipment							X	X			X	X			X	X		
Steam Generators:																		
Steam-theory	X					X	X	X		X			X	X			X	X
Main boilers	X			X		X		X		X			X					
Auxiliary boilers		X		X		X	X	X		X		X	X			X		X
Feedwater systems	X	X		X		X		X		X		X	X			X	X	X
Condensate systems	X	X		X		X		X		X		X	X			X	X	X
Recovery systems	X	X		X		X		X		X		X	X			X	X	X
Fuel	X			X		X		X		X		X	X			X		
Main fuel systems				X		X		X		X		X	X			X		
Boiler water chemistry	X			X		X		X		X		X	X			X		
Control systems	X			X		X		X		X		X	X			X		
Automation systems	X			X		X		X		X		X	X			X		
Safety	X			X		X		X		X		X	X			X		
Casualty control	X			X		X		X		X		X	X			X		
Steam engines:																		
Main turbines	X			X		X		X		X		X	X			X		
Auxiliary turbines	X			X		X		X		X		X	X			X		
Governor systems	X			X		X		X		X		X	X			X		
Control systems	X			X		X		X		X		X	X			X		
Automation systems	X			X		X		X		X		X	X			X		
Lubrication systems	X					X		X		X			X				X	
Drive systems	X			X		X		X		X		X	X			X		
Safety	X			X		X		X		X		X	X			X		
Casualty control	X			X		X		X		X		X	X			X		
Motor propulsion:																		
Fundamentals	X							X		X				X			X	X
Main engines	X						X			X				X		X		X

	7			8			9			10			11			12			13			14			15		
	S	M	G	S	M	S	S	M	S	M	S	M	S	M	S	M	S	M	S	M	S	M	S	M	S		
Auxiliary engines		X			X			X		X			X														
Starting systems		X			X			X		X			X														
Lubrication systems		X			X			X		X			X														
Fuel		X			X			X		X			X														
Fuel systems		X			X			X		X			X														
Fuel Injection systems		X			X			X		X			X														
Intake systems		X						X																			
Exhaust systems		X			X			X		X			X														
Cooling systems		X						X																			
Air-charging systems		X					X			X					X					X							
Drive systems		X			X			X		X			X							X							
Control systems		X			X			X		X			X							X							
Automation systems		X			X			X		X			X							X							
Governors		X			X			X		X			X							X							
Steam systems		X						X		X			X							X							
Water chemistry																											
Safety		X			X			X		X			X							X							
Casualty control		X			X			X		X			X							X							
Safety:																											
Fire theory	X	X	X	X	X	X		X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X		
Fire prevention	X	X	X	X	X	X		X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X		
Fire fighting	X	X	X	X	X	X		X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X		
Flooding	X	X	X	X	X	X		X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X		
Dewatering	X	X	X	X	X	X		X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X		
Stability and trim	X	X	X	X	X	X		X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X		
Damage control	X	X	X	X	X	X		X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X		
Emergency equipment and lifesaving appliances.																											
General safety	X	X	X	X	X	X		X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X		
Hazardous materials	X	X	X	X	X	X		X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X		
Pollution	X	X	X	X	X	X		X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X		

	7			8			9			10			11			12			13			14			15		
	S	M	G	S	M	S	S	M	S	S	M	S	M	S	S	M	S	S	M	S	M	S	M	S	M		
Inspections and surveys	X	X	X	X	X					X	X	X				X	X		X	X	X	X					
U.S. rules and regulations	X	X	X	X	X			X	X	X	X		X	X		X	X		X	X	X	X	X	X	X		
Gas Turbines																											
Configurations			X																								
Fundamentals			X																								
Thermo-dynamics			X																								
Construction			X																								
Operating parameters			X																								
Start systems			X																								
Lubrication systems			X																								
Fuel systems			X																								
Drive systems			X																								
Bleed air systems			X																								
Intake and exhaust systems			X																								
Instrumentation and controls			X																								
Maintenance			X																								
Inspection			X																								
Troubleshooting			X																								
Casualty control			X																								
Management level																											
Management skills				X	X					X	X					X	X		X	X		X	X				
Crisis management				X	X					X	X					X	X		X	X		X	X				
Shipyard				X	X					X	X					X	X		X	X		X	X				
Inspections-surveys				X	X					X	X					X	X		X	X		X	X				
Vessel layout				X	X					X	X					X	X		X	X		X	X				
Employee familiarization				X	X					X	X					X	X		X	X		X	X				
Operational planning				X	X					X	X					X	X		X	X		X	X				
Assessing competency				X	X					X	X					X	X		X	X		X	X				

	7			8			9			10			11			12			13			14			15		
	S	M	G	S	M	S	S	M	S	S	M	S	M	S	S	M	S	M	S	M	S	M	S	M			
Management practices				X	X				X	X							X	X			X	X					
Arbitration				X	X				X	X							X	X			X	X					
Internal documents				X	X				X	X							X	X			X	X					
International laws-conventions				X	X				X	X							X	X			X	X					
Technical analysis				X	X				X	X							X	X			X	X					
Maintenance systems				X	X				X	X							X	X			X	X					
Troubleshooting				X	X				X	X							X	X			X	X					
Codes and regulations				X	X				X	X							X	X			X	X					

Note: Numbers on the top row of this table represent endorsement titles found in table 1 to § 11.950

S - Steam propulsion  
M - Motor propulsion  
G - Gas turbine propulsion