

# MARPOL ANNEX VI AND NTC 2008 WITH GUIDELINES FOR IMPLEMENTATION

2017 EDITION

## Errata March 2018

### Chapter 4 – Regulations on energy efficiency for ships

*On pages 32 and 33, replace regulations 20 and 21 with the following:*

#### **“Regulation 20**

*Attained Energy Efficiency Design Index (attained EEDI)*

- 1 The attained EEDI shall be calculated for:
  - .1 each new ship;
  - .2 each new ship which has undergone a major conversion; and
  - .3 each new or existing ship which has undergone a major conversion, that is so extensive that the ship is regarded by the Administration as a newly-constructed ship,

which falls into one or more of the categories in regulations 2.25 to 2.35, 2.38 and 2.39 of this Annex. The attained EEDI shall be specific to each ship and shall indicate the estimated performance of the ship in terms of energy efficiency, and be accompanied by the EEDI technical file that contains the information necessary for the calculation of the attained EEDI and that shows the process of calculation. The attained EEDI shall be verified, based on the EEDI technical file, either by the Administration or by any organization duly authorized by it.\*

- 2 The attained EEDI shall be calculated taking into account guidelines<sup>†</sup> developed by the Organization.

#### **Regulation 21**

*Required EEDI*

- 1 For each:
  - .1 new ship,
  - .2 new ship which has undergone a major conversion, and
  - .3 new or existing ship which has undergone a major conversion that is so extensive that the ship is regarded by the Administration as a newly-constructed ship,

which falls into one of the categories in regulations 2.25 to 2.31, 2.33 to 2.35, 2.38 and 2.39 and to which this chapter is applicable, the attained EEDI shall be as follows:

$$\text{Attained EEDI} \leq \text{Required EEDI} = \left(1 - \frac{X}{100}\right) \cdot \text{Reference line value}$$

where X is the reduction factor specified in table 1 for the required EEDI compared to the EEDI reference line.

\* Refer to Guidelines for the authorization of organizations acting on behalf of the Administration (resolution A.739(18), as amended by resolution MSC.208(81)), and Specifications on the survey and certification functions of recognized organizations acting on behalf of the Administration (resolution A.789(19), as may be amended).

<sup>†</sup> Refer to 2014 Guidelines on the method of calculation of the Energy Efficiency Design Index for new ships (resolution MEPC.245(66), as amended by resolutions MEPC.263(68) and MEPC.281(70)).

2 For each new and existing ship that has undergone a major conversion which is so extensive that the ship is regarded by the Administration as a newly constructed ship, the attained EEDI shall be calculated and meet the requirement of paragraph 21.1 with the reduction factor applicable corresponding to the ship type and size of the converted ship at the date of the contract of the conversion, or in the absence of a contract, the commencement date of the conversion.”

**Appendix VII  
Emission control areas  
(regulations 13.6 and 14.3)**

*On pages 54 to 63, replace appendix VII with the following:*

**“Appendix VII  
Emission control areas  
(regulations 13.6 and 14.3)**

1 The boundaries of emission control areas designated under regulations 13.6 and 14.3, other than the Baltic Sea and the North Sea areas, are set forth in this appendix.

2 The North American area comprises:

.1 the sea area located off the Pacific coasts of the United States and Canada, enclosed by geodesic lines connecting the following coordinates:

Point	Latitude	Longitude
1	32°32'10" N	117°06'11" W
2	32°32'04" N	117°07'29" W
3	32°31'39" N	117°14'20" W
4	32°33'13" N	117°15'50" W
5	32°34'21" N	117°22'01" W
6	32°35'23" N	117°27'53" W
7	32°37'38" N	117°49'34" W
8	31°07'59" N	118°36'21" W
9	30°33'25" N	121°47'29" W
10	31°46'11" N	123°17'22" W
11	32°21'58" N	123°50'44" W
12	32°56'39" N	124°11'47" W
13	33°40'12" N	124°27'15" W
14	34°31'28" N	125°16'52" W
15	35°14'38" N	125°43'23" W
16	35°43'60" N	126°18'53" W
17	36°16'25" N	126°45'30" W
18	37°01'35" N	127°07'18" W
19	37°45'39" N	127°38'02" W
20	38°25'08" N	127°52'60" W
21	39°25'05" N	128°31'23" W
22	40°18'47" N	128°45'46" W
23	41°13'39" N	128°40'22" W

Point	Latitude	Longitude
24	42°12'49" N	129°00'38" W
25	42°47'34" N	129°05'42" W
26	43°26'22" N	129°01'26" W
27	44°24'43" N	128°41'23" W
28	45°30'43" N	128°40'02" W
29	46°11'01" N	128°49'01" W
30	46°33'55" N	129°04'29" W
31	47°39'55" N	131°15'41" W
32	48°32'32" N	132°41'00" W
33	48°57'47" N	133°14'47" W
34	49°22'39" N	134°15'51" W
35	50°01'52" N	135°19'01" W
36	51°03'18" N	136°45'45" W
37	51°54'04" N	137°41'54" W
38	52°45'12" N	138°20'14" W
39	53°29'20" N	138°40'36" W
40	53°40'39" N	138°48'53" W
41	54°13'45" N	139°32'38" W
42	54°39'25" N	139°56'19" W
43	55°20'18" N	140°55'45" W
44	56°07'12" N	141°36'18" W
45	56°28'32" N	142°17'19" W
46	56°37'19" N	142°48'57" W
47	58°51'04" N	153°15'03" W

- .2 the sea areas located off the Atlantic coasts of the United States, Canada and France (Saint-Pierre-et-Miquelon), and the Gulf of Mexico coast of the United States enclosed by geodesic lines connecting the following coordinates:

Point	Latitude	Longitude
1	60°00'00" N	64°09'36" W
2	60°00'00" N	56°43'00" W
3	58°54'01" N	55°38'05" W
4	57°50'52" N	55°03'47" W
5	57°35'13" N	54°00'59" W
6	57°14'20" N	53°07'58" W
7	56°48'09" N	52°23'29" W
8	56°18'13" N	51°49'42" W
9	54°23'21" N	50°17'44" W
10	53°44'54" N	50°07'17" W
11	53°04'59" N	50°10'05" W
12	52°20'06" N	49°57'09" W
13	51°34'20" N	48°52'45" W
14	50°40'15" N	48°16'04" W
15	50°02'28" N	48°07'03" W

<b>Point</b>	<b>Latitude</b>	<b>Longitude</b>
16	49°24'03" N	48°09'35" W
17	48°39'22" N	47°55'17" W
18	47°24'25" N	47°46'56" W
19	46°35'12" N	48°00'54" W
20	45°19'45" N	48°43'28" W
21	44°43'38" N	49°16'50" W
22	44°16'38" N	49°51'23" W
23	43°53'15" N	50°34'01" W
24	43°36'06" N	51°20'41" W
25	43°23'59" N	52°17'22" W
26	43°19'50" N	53°20'13" W
27	43°21'14" N	54°09'20" W
28	43°29'41" N	55°07'41" W
29	42°40'12" N	55°31'44" W
30	41°58'19" N	56°09'34" W
31	41°20'21" N	57°05'13" W
32	40°55'34" N	58°02'55" W
33	40°41'38" N	59°05'18" W
34	40°38'33" N	60°12'20" W
35	40°45'46" N	61°14'03" W
36	41°04'52" N	62°17'49" W
37	40°36'55" N	63°10'49" W
38	40°17'32" N	64°08'37" W
39	40°07'46" N	64°59'31" W
40	40°05'44" N	65°53'07" W
41	39°58'05" N	65°59'51" W
42	39°28'24" N	66°21'14" W
43	39°01'54" N	66°48'33" W
44	38°39'16" N	67°20'59" W
45	38°19'20" N	68°02'01" W
46	38°05'29" N	68°46'55" W
47	37°58'14" N	69°34'07" W
48	37°57'47" N	70°24'09" W
49	37°52'46" N	70°37'50" W
50	37°18'37" N	71°08'33" W
51	36°32'25" N	71°33'59" W
52	35°34'58" N	71°26'02" W
53	34°33'10" N	71°37'04" W
54	33°54'49" N	71°52'35" W
55	33°19'23" N	72°17'12" W
56	32°45'31" N	72°54'05" W
57	31°55'13" N	74°12'02" W
58	31°27'14" N	75°15'20" W

<b>Point</b>	<b>Latitude</b>	<b>Longitude</b>
59	31°03'16" N	75°51'18" W
60	30°45'42" N	76°31'38" W
61	30°12'48" N	77°18'29" W
62	29°25'17" N	76°56'42" W
63	28°36'59" N	76°47'60" W
64	28°17'13" N	76°40'10" W
65	28°17'12" N	79°11'23" W
66	27°52'56" N	79°28'35" W
67	27°26'01" N	79°31'38" W
68	27°16'13" N	79°34'18" W
69	27°11'54" N	79°34'56" W
70	27°05'59" N	79°35'19" W
71	27°00'28" N	79°35'17" W
72	26°55'16" N	79°34'39" W
73	26°53'58" N	79°34'27" W
74	26°45'46" N	79°32'41" W
75	26°44'30" N	79°32'23" W
76	26°43'40" N	79°32'20" W
77	26°41'12" N	79°32'01" W
78	26°38'13" N	79°31'32" W
79	26°36'30" N	79°31'06" W
80	26°35'21" N	79°30'50" W
81	26°34'51" N	79°30'46" W
82	26°34'11" N	79°30'38" W
83	26°31'12" N	79°30'15" W
84	26°29'05" N	79°29'53" W
85	26°25'31" N	79°29'58" W
86	26°23'29" N	79°29'55" W
87	26°23'21" N	79°29'54" W
88	26°18'57" N	79°31'55" W
89	26°15'26" N	79°33'17" W
90	26°15'13" N	79°33'23" W
91	26°08'09" N	79°35'53" W
92	26°07'47" N	79°36'09" W
93	26°06'59" N	79°36'35" W
94	26°02'52" N	79°38'22" W
95	25°59'30" N	79°40'03" W
96	25°59'16" N	79°40'08" W
97	25°57'48" N	79°40'38" W
98	25°56'18" N	79°41'06" W
99	25°54'04" N	79°41'38" W
100	25°53'24" N	79°41'46" W
101	25°51'54" N	79°41'59" W

<b>Point</b>	<b>Latitude</b>	<b>Longitude</b>
102	25°49'33" N	79°42'16" W
103	25°48'24" N	79°42'23" W
104	25°48'20" N	79°42'24" W
105	25°46'26" N	79°42'44" W
106	25°46'16" N	79°42'45" W
107	25°43'40" N	79°42'59" W
108	25°42'31" N	79°42'48" W
109	25°40'37" N	79°42'27" W
110	25°37'24" N	79°42'27" W
111	25°37'08" N	79°42'27" W
112	25°31'03" N	79°42'12" W
113	25°27'59" N	79°42'11" W
114	25°24'04" N	79°42'12" W
115	25°22'21" N	79°42'20" W
116	25°21'29" N	79°42'08" W
117	25°16'52" N	79°41'24" W
118	25°15'57" N	79°41'31" W
119	25°10'39" N	79°41'31" W
120	25°09'51" N	79°41'36" W
121	25°09'03" N	79°41'45" W
122	25°03'55" N	79°42'29" W
123	25°02'60" N	79°42'56" W
124	25°00'30" N	79°44'05" W
125	24°59'03" N	79°44'48" W
126	24°55'28" N	79°45'57" W
127	24°44'18" N	79°49'24" W
128	24°43'04" N	79°49'38" W
129	24°42'36" N	79°50'50" W
130	24°41'47" N	79°52'57" W
131	24°38'32" N	79°59'58" W
132	24°36'27" N	80°03'51" W
133	24°33'18" N	80°12'43" W
134	24°33'05" N	80°13'21" W
135	24°32'13" N	80°15'16" W
136	24°31'27" N	80°16'55" W
137	24°30'57" N	80°17'47" W
138	24°30'14" N	80°19'21" W
139	24°30'06" N	80°19'44" W
140	24°29'38" N	80°21'05" W
141	24°28'18" N	80°24'35" W
142	24°28'06" N	80°25'10" W
143	24°27'23" N	80°27'20" W
144	24°26'30" N	80°29'30" W

<b>Point</b>	<b>Latitude</b>	<b>Longitude</b>
145	24°25'07" N	80°32'22" W
146	24°23'30" N	80°36'09" W
147	24°22'33" N	80°38'56" W
148	24°22'07" N	80°39'51" W
149	24°19'31" N	80°45'21" W
150	24°19'16" N	80°45'47" W
151	24°18'38" N	80°46'49" W
152	24°18'35" N	80°46'54" W
153	24°09'51" N	80°59'47" W
154	24°09'48" N	80°59'51" W
155	24°08'58" N	81°01'07" W
156	24°08'30" N	81°01'51" W
157	24°08'26" N	81°01'57" W
158	24°07'28" N	81°03'06" W
159	24°02'20" N	81°09'05" W
160	23°59'60" N	81°11'16" W
161	23°55'32" N	81°12'55" W
162	23°53'52" N	81°19'43" W
163	23°50'52" N	81°29'59" W
164	23°50'02" N	81°39'59" W
165	23°49'05" N	81°49'59" W
166	23°49'05" N	82°00'11" W
167	23°49'42" N	82°09'59" W
168	23°51'14" N	82°24'59" W
169	23°51'14" N	82°39'59" W
170	23°49'42" N	82°48'53" W
171	23°49'32" N	82°51'11" W
172	23°49'24" N	82°59'59" W
173	23°49'52" N	83°14'59" W
174	23°51'22" N	83°25'49" W
175	23°52'27" N	83°33'01" W
176	23°54'04" N	83°41'35" W
177	23°55'47" N	83°48'11" W
178	23°58'38" N	83°59'59" W
179	24°09'37" N	84°29'27" W
180	24°13'20" N	84°38'39" W
181	24°16'41" N	84°46'07" W
182	24°23'30" N	84°59'59" W
183	24°26'37" N	85°06'19" W
184	24°38'57" N	85°31'54" W
185	24°44'17" N	85°43'11" W
186	24°53'57" N	85°59'59" W
187	25°10'44" N	86°30'07" W

Point	Latitude	Longitude
188	25°43'15" N	86°21'14" W
189	26°13'13" N	86°06'45" W
190	26°27'22" N	86°13'15" W
191	26°33'46" N	86°37'07" W
192	26°01'24" N	87°29'35" W
193	25°42'25" N	88°33'00" W
194	25°46'54" N	90°29'41" W
195	25°44'39" N	90°47'05" W
196	25°51'43" N	91°52'50" W
197	26°17'44" N	93°03'59" W
198	25°59'55" N	93°33'52" W
199	26°00'32" N	95°39'27" W
200	26°00'33" N	96°48'30" W
201	25°58'32" N	96°55'28" W
202	25°58'15" N	96°58'41" W
203	25°57'58" N	97°01'54" W
204	25°57'41" N	97°05'08" W
205	25°57'24" N	97°08'21" W
206	25°57'24" N	97°08'47" W

- .3 the sea area located off the coasts of the Hawaiian Islands of Hawai'i, Maui, Oahu, Moloka'i, Ni'i'hau, Kaua'i, Lāna'i and Kaho'olawe, enclosed by geodesic lines connecting the following coordinates:

Point	Latitude	Longitude
1	22°32'54" N	153°00'33" W
2	23°06'05" N	153°28'36" W
3	23°32'11" N	154°02'12" W
4	23°51'47" N	154°36'48" W
5	24°21'49" N	155°51'13" W
6	24°41'47" N	156°27'27" W
7	24°57'33" N	157°22'17" W
8	25°13'41" N	157°54'13" W
9	25°25'31" N	158°30'36" W
10	25°31'19" N	159°09'47" W
11	25°30'31" N	159°54'21" W
12	25°21'53" N	160°39'53" W
13	25°00'06" N	161°38'33" W
14	24°40'49" N	162°13'13" W
15	24°15'53" N	162°43'08" W
16	23°40'50" N	163°13'00" W
17	23°03'20" N	163°32'58" W
18	22°20'09" N	163°44'41" W
19	21°36'45" N	163°46'03" W
20	20°55'26" N	163°37'44" W



Point	Latitude	Longitude
21	20°13'34" N	163°19'13" W
22	19°39'03" N	162°53'48" W
23	19°09'43" N	162°20'35" W
24	18°39'16" N	161°19'14" W
25	18°30'31" N	160°38'30" W
26	18°29'31" N	159°56'17" W
27	18°10'41" N	159°14'08" W
28	17°31'17" N	158°56'55" W
29	16°54'06" N	158°30'29" W
30	16°25'49" N	157°59'25" W
31	15°59'57" N	157°17'35" W
32	15°40'37" N	156°21'06" W
33	15°37'36" N	155°22'16" W
34	15°43'46" N	154°46'37" W
35	15°55'32" N	154°13'05" W
36	16°46'27" N	152°49'11" W
37	17°33'42" N	152°00'32" W
38	18°30'16" N	151°30'24" W
39	19°02'47" N	151°22'17" W
40	19°34'46" N	151°19'47" W
41	20°07'42" N	151°22'58" W
42	20°38'43" N	151°31'36" W
43	21°29'09" N	151°59'50" W
44	22°06'58" N	152°31'25" W
45	22°32'54" N	153°00'33" W

3 The United States Caribbean Sea area includes:

- .1 the sea area located off the Atlantic and Caribbean coasts of the Commonwealth of Puerto Rico and the United States Virgin Islands, enclosed by geodesic lines connecting the following coordinates:

Point	Latitude	Longitude
1	17°18'37" N	67°32'14" W
2	19°11'14" N	67°26'45" W
3	19°30'28" N	65°16'48" W
4	19°12'25" N	65°06'08" W
5	18°45'13" N	65°00'22" W
6	18°41'14" N	64°59'33" W
7	18°29'22" N	64°53'51" W
8	18°27'35" N	64°53'22" W
9	18°25'21" N	64°52'39" W
10	18°24'30" N	64°52'19" W
11	18°23'51" N	64°51'50" W
12	18°23'42" N	64°51'23" W

<b>Point</b>	<b>Latitude</b>	<b>Longitude</b>
13	18°23'36" N	64°50'17" W
14	18°23'48" N	64°49'41" W
15	18°24'11" N	64°49'00" W
16	18°24'28" N	64°47'57" W
17	18°24'18" N	64°47'01" W
18	18°23'13" N	64°46'37" W
19	18°22'37" N	64°45'20" W
20	18°22'39" N	64°44'42" W
21	18°22'42" N	64°44'36" W
22	18°22'37" N	64°44'24" W
23	18°22'39" N	64°43'42" W
24	18°22'30" N	64°43'36" W
25	18°22'25" N	64°42'58" W
26	18°22'26" N	64°42'28" W
27	18°22'15" N	64°42'03" W
28	18°22'22" N	64°40'60" W
29	18°21'57" N	64°40'15" W
30	18°21'51" N	64°38'23" W
31	18°21'22" N	64°38'16" W
32	18°20'39" N	64°38'33" W
33	18°19'15" N	64°38'14" W
34	18°19'07" N	64°38'16" W
35	18°17'23" N	64°39'38" W
36	18°16'43" N	64°39'41" W
37	18°11'33" N	64°38'58" W
38	18°03'02" N	64°38'03" W
39	18°02'56" N	64°29'35" W
40	18°02'51" N	64°27'02" W
41	18°02'30" N	64°21'08" W
42	18°02'31" N	64°20'08" W
43	18°02'03" N	64°15'57" W
44	18°00'12" N	64°02'29" W
45	17°59'58" N	64°01'04" W
46	17°58'47" N	63°57'01" W
47	17°57'51" N	63°53'54" W
48	17°56'38" N	63°53'21" W
49	17°39'40" N	63°54'53" W
50	17°37'08" N	63°55'10" W
51	17°30'21" N	63°55'56" W
52	17°11'36" N	63°57'57" W
53	17°04'60" N	63°58'41" W
54	16°59'49" N	63°59'18" W
55	17°18'37" N	67°32'14" W

## Appendix IX

### **Information to be submitted to the IMO Ship Fuel Oil Consumption Database**

*On page 67, replace the third footnote with the following:*

*“\* DWT means the difference in tonnes between the displacement of a ship in water of relative density of 1,025 kg/m<sup>3</sup> at the summer load draught and the lightweight of the ship. The summer load draught should be taken as the maximum summer draught as certified in the stability booklet approved by the Administration or an organization recognized by it.”*