



REDUCTION OF CFR STUDY and SIMPLIFICATION OF CFR USAGE by Richard Plant

For decades, mariners have been use to using the Government Printing Office (GPO) printed Code of Federal Regulations (CFRs) referring to the INDEXES so conveniently provided. However, in approximately 2007, or shortly thereafter, the GPO decided that with the eCFR (Electronic Code of Federal Regulations) available via the Internet, with the capability of word or phrase searching, the development and use of the Indexes in the CFRs was no longer needed. See emails on the next page.

I have been in contact with the GPO and those who established the Indexes. I informed them that Merchant Mariners, taking the USCG License Exams, issued by the National Maritime Center (NMC), are NOT allowed the use of the electronic form of the eCFRs in the exam room, and NO COMPUTER access to the Internet is provided, even though this is the Industry Common Practice aboard vessel. Therefore, the use of Indexes in CFRs is invaluable to the mariner. The response was "SORRY, they will NOT be added back."

In an attempt to find a way to make the understanding and use of CFRs easier, I have taken on the task of reviewing, for now Deck only in DECK SAFETY, all of the CFR questions organizing and analyzing them as I have done for other areas in the Deck and Engine database of questions released by the NMC, now released on a yearly time frame around mid-September.

The following pages and this 33 and 46 CFR summary are my end results, for now. A PDF file has been compiled of the 2 of 3 volumes for 33 CFR and the 7 of 9 volumes for 46 CFR allowed to be referenced in the exam room by the NMC. (In reality, 8 volumes are available for 46 CFR but volume 8 - Parts 200-499 references only 3 questions, so I decide to leave it out.) Upon joining these PDF files into one PDF book, I have added a "Bates" numbering system which sequentially numbers the 33 CFR from page 1 to 1838 and the 46 CFR from page 1 to 3576. I have created an Excel spreadsheet (.xlsm) that allows me to look up of each section and note its beginning page number. **The one major factor to consider though is the realization that NOT all of the CFR questions apply to each and every license exam.** Selecting a specific part within **LAPWARE** might produce an error message telling you that there are no questions for the filter as selected. When you see this error message you must remember what was just stated and the fact that POSSIBLY LAPWARE does not have a reference to all of the questions NMC actually does ask on a particular license.

There pdf files are BOOKMARKED for easier location of the applicable Part or Volume. This is the key to simplifying the CFRs. You need really ONLY study those Parts or Subchapters that pertain to numerous NMC questions FOR YOUR LICENSE EXAM. In doing so you will learn how to use the CFRs and thus will be better able to find other, more obscure, questions as provided by the NMC. ONE MAJOR PROBLEM - the NMC keyed answer is NOT always correct - that is, up to date with the latest CFR version available. Many of these will be pointed out to the NMC.

EMAILS between Richard Plant and the eCFR Office



May 6, 2014
To: ecfr@nara.gov

To Whom It May Concern,

I have written to you before regarding CFR indexes being removed and the response basically was that with the eCFR the Indexes are no longer needed since the files are optical character recognized (OCR) and can be searched. That's fine and good but here is my (OUR - the maritime industry) problem.

We have thousands of mariners each year taking United States Coast Guard - National Maritime Center (USCG - NMC) license exams for Deck and Engineering positions on board U.S. flagged vessels, during which the mariner is **NOT** allowed to use computers in any way. Therefore, they must resort to using the hard copy (printed) CFRs. Of course, without the use of INDEXES mariners have to page through various Volumes or Part Numbers of the CFRs to find the correct Subchapter and then the proper Part in that Subchapter and then the Regulation that answers the question. Of course, one can never memorize all CFRs and that's what the removal of the Indexes does to these mariners taking a license exam on which there are hundreds of license exam questions referencing CFRs. And this is NOT just the 33 CFR but also the 46 CFR and the 49 CFR.

PLEASE check with the GPO as to how many HARD COPIES of the CFRs are sold. I think you will find the number will be high. High enough to warrant the reintroduction of Indexes in the CFRs.

I am asking if you could PLEASE RECONSIDER putting Indexes back into the CFRs for the benefit of major users who must comply with the regulations for the safe operation of their vessel, transport of cargo and safety of crew.

Thank you very much,

Richard Plant

May 8, 2014

Thank you for contacting the e-CFR help desk at the Office of the Federal Register.

As you have contacted us before, this was possibly because of our and GPO's decision not to carry any agency-maintained index in the e-CFR. We defend this decision because the search capabilities we offer are more flexible and far-reaching than a static annual index, which doesn't reflect material added since its last revision.

Your particular concern is worsened by Coast Guard's decision to discontinue their indexes.

Over the years some agencies have communicated their dissatisfaction with the annual index we provide for the series. We have offered them the option of providing us with an index, which doesn't have to be published in the Register to be included in the CFR. This is done with their agreement to maintain the index and provide us with updates or notification that no changes were required for a particular year.

Over years priorities change for agencies, and folks who are good at the indexes retire. The indexes require extra responsibility for us, and, frankly, we have never fought an agency's decision to drop their index (although SSA stopped, reconsidered, and reinstated their index).

You would have to communicate your concerns with (to the) USCG. Perhaps you could develop a finding aid that lists index terms to be used in conjunction with the search facilities provided with the e-CFR and the online CFR.

Ken Payne
Office of the Federal Register
National Archives and Records Administration



SUMMARY OF DECK CFR QUESTIONS

SAFETY CFR QUESTIONS (includes 2nd or 3rd reference) 1635
33 CFR 236
46 CFR 1351
49 CFR 1
1588 TOTAL

212 Primary Referenced

1189 Primary Referenced

0 Primary Referenced

1401 TOTAL

NAVIGATION GENERAL CFR QUESTIONS 169
33 CFR 169
46 CFR 0
49 CFR 0

DECK GENERAL CFR QUESTIONS 407
33 CFR 49
46 CFR 319
49 CFR 44



33 CFR ANALYSIS

Count	33 CFR - 2 Volumes	Counter	subCategory3	Questions	By Part	By Vol
1	1-124 A - K	23	33 CFR 026 A = General = Bridge Radiotelephone			
2		2	33 CFR 027 A = General = Monetary Penalties	25	A	
3		9	33 CFR 067 C = Aids to Navig = Artificial Islands	9	C	34
4	125-199 L - S	2	33 CFR 126 L = Waterfront Facilities = Dang Cargo	2	L	
5		69	33 CFR 151 O = Pollution = Vessels Carrying Oil, etc			
6		11	33 CFR 153 O = Pollution = Def Marine Debris, etc			
7		4	33 CFR 154 O = Pollution = Transfer Oil/Hazmat in Bulk			
8		39	33 CFR 155 O = Pollution = Oil/Hazmat Pollut Prevent Regs			
9		26	33 CFR 156 O = Pollution = Oil/Hazmat Transfer Ops			
10		4	33 CFR 157 O = Pollution = Protecdt Marine Environ			
11		1	33 CFR 159 O = Pollution = Marine Sanitation Devices	154	O	
12		1	33 CFR 160 P = Ports Waterways = Safety, General			
13		21	33 CFR 164 P = Ports Waterways = Navig Safety Regs	22	P	178
1 to 199 Parts		212		212		212

1

2

33 CFR - 1-124 = 05, 06, 07, 09 [Q 34] 33 CFR - 125-199 = 05, 06, 07 [Q181]	46 CFR - 1 - 40 = 03, 05, 07, 09, 10 [Q264] 46 CFR - 41 - 69 = 03, 04, 06, 07, 09 [Q 10] 46 CFR - 70 - 89 = 06, 09 [Q 22] 46 CFR - 90 - 139 = 05, 06, 10 [Q499]	46 CFR - 140 - 155 = 06, 09 [Q 035] 46 CFR - 156 - 165 = 02, 09 [Q160] 46 CFR - 166 - 199 = 04, 05, 06, 09, 10 [Q319] 46 CFR - 200 - 499 = 04, 05, 09, 10 [Q 3]
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I have inserted the above table which I created from the NMC's website file which describes the CFRs available for use within the exam room. I am ashamed to admit that the NMC is still referencing CFRs that are 10, 11 and even 12 years old.

The above table list the 33 CFR volumes 1-2 and 46 CFR volumes 1-8 and then the YEARS of the CFRs available in the exam room based upon the NMC's Deck Reference Library. Check out the link I have provided and review pages 7 and 8.

http://www.uscg.mil/nmc/training/exams/pdfs/deck_ref_library.pdf

The NMC should be using the LATEST CFR available as printed by the Government Printing Office. This is a common practice used by most training facilities. The fact that regulations have changed over the years is well known. To be basing license exam questions on OLD CFRs which very well will have different answers, is improper, unfair and unjust to the mariner who has paid for a good, proper and correct license exam. HE/SHE is NOT GETTING THAT! Not if the NMC is allowing reference to OLD CFRs for their answers as is proven above and can easily be found on the NMC website as shown. The NMC needs to provide in exam rooms at the RECs, and require that training facilities are doing the same, up to date CFRs for reference use to license exam questions. THIS SHOULD BE VERIFIED PRIOR to the commencement of the license exam being taken by the mariner(s). FINALLY, ALL CFR questions should be verified for validity in that the CFR reference does exist and has not been removed, renumbered or reserved. If the NMC cannot find a valid reference how is the mariner to find it?

Richard Plant

46 CFR ANALYSIS



Count	46 CFR - 8 Volumes	Counter	subCategory3	Questions	By Part	By Vol
1	1-40 A-D	3	46 CFR 010 B = Merchant Marine Officers = Credentials			
2		9	46 CFR 015 B = Merchant Marine Officers = Manning Require	12	B	
3		25	46 CFR 025 C = Uninspected Vessels = Requirements			
4		6	46 CFR 026 C = Uninspected Vessels = Operations			
5		28	46 CFR 027 C = Uninspected Vessels = Towing Vessels			
6		53	46 CFR 028 C = Uninspected Vessels = Comm Fishing	112	C	
7		6	46 CFR 030 D = Tank Vessels = General Provisions			
8		11	46 CFR 031 D = Tank Vessels = Inspect and Cert			
9		54	46 CFR 032 D = Tank Vessels = Special Machinery Hull			
10		11	46 CFR 034 D = Tank Vessels = Firefighting Equipment			
11		43	46 CFR 035 D = Tank Vessels = Operations			
12		5	46 CFR 038 D = Tank Vessels = Liq Flam Gases			
13		10	46 CFR 039 D = Tank Vessels = Vapor Control Systems	140	D	264
14	41-69 E-G	7	46 CFR 042 E = Load Lines = Dom and Foreign Voy by Sea	7	E	
15		2	46 CFR 056 F = Marine Engineering = Piping Systems	2	F	
16		1	46 CFR 067 G = Documentation of Vessels	1	G	10
17	70-89 H	6	46 CFR 070 H = Passenger Vessels = General Provisions			
18		2	46 CFR 071 H = Passenger Vessels = Inspect and Certif			
19		1	46 CFR 072 H = Passenger Vessels = Construct and Arrange			
20		1	46 CFR 076 H = Passenger Vessels = Fire Prot Equip			
21		11	46 CFR 078 H = Passenger Vessels = Operations			
22		1	46 CFR 080 H = Passenger Vessels = Safety Standards	22	H	22
23	90-139 I-L	4	46 CFR 091 I = Cargo Misc Vessels = Inspect and Certif			
24		6	46 CFR 092 I = Cargo Misc Vessels = Construct and Arrange			
25		52	46 CFR 095 I = Cargo Misc Vessels = Fire Prot Equip			
26		7	46 CFR 096 I = Cargo Misc Vessels = Vessel Control			
27		103	46 CFR 097 I = Cargo Misc Vessels = Operations	172	I	
28		23	46 CFR 107 IA = MODUs = Inspection and Certification			
29		139	46 CFR 108 IA = MODUs = Design and Equip			
30		133	46 CFR 109 IA = MODUs = Operations	295	IA	
31		3	46 CFR 111 J = Electrical Engineering = Electric Systems	3	J	
32		1	46 CFR 126 L = OSV = Inspect and Certif			
33		2	46 CFR 130 L = OSV = Vessel Control			
34		8	46 CFR 131 L = OSV = Operations			
35	15	46 CFR 133 L = OSV = Lifesaving Systems	26	L	496	
36	140-155 N-P	4	46 CFR 147 N = Dang Cargoes = Haz Ships Stores	4	N	
37		17	46 CFR 151 O = Bulk Dang Cargoes = Barges Liq Hazmat			
38		10	46 CFR 154 O = Bulk Dang Cargoes = Liquefied Gases	27	O	31
39	156-165 Q	44	46 CFR 160 Q = Lifesaving Equipment	44	Q	44
40	166-199 R-V	5	46 CFR 170 S = Stability = Requirementets for Insp Vessels			
41		3	46 CFR 171 S = Stability = Vessels Carrying Passengers	8	S	
42		7	46 CFR 175 T = Small Pass Ves = General Provisions			
43		29	46 CFR 176 T = Small Pass Ves = Insp and Cert			
44		4	46 CFR 177 T = Small Pass Ves = Const and Arrange			
45		1	46 CFR 178 T = Small Pass Ves = Intact Stab and Seaworthy			
46		9	46 CFR 179 T = Small Pass Ves = Damage Stability			
47		61	46 CFR 180 T = Small Pass Ves = Lifesaving Equipment			
48		12	46 CFR 181 T = Small Pass Ves = Fire Protect Equip			
49		64	46 CFR 182 T = Small Pass Ves = Machinery Installation			
50		17	46 CFR 183 T = Small Pass Ves = Electrical Installation			
51		7	46 CFR 184 T = Small Pass Ves = Vessel Control			
52		29	46 CFR 185 T = Small Pass Ves = Operations	240	T	
53		71	46 CFR 199 W = OSHA = Lifesaving Appliances	71	W	319
54		200-499 A-K	3	46 CFR 307 F = Position Reporting System = Mandatory	3	
1 to 499 Parts		1189		1189		1189

1
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LAPWARE SOLUTION DESCRIBED



Over a three week period Richard Plant has reviewed thoroughly the Deck Safety CFR questions as defined or associated to the volumes, parts or subchapters as described on the two previous pages.

The problem was one of HOW DO THESE GET APPLIED IN **LAPWARE**?

First attempted solution: I inserted for all of the CFR questions a fourth (Subcategory3) field defining that each question be associated to EITHER **33 CFR** or **46 CFR**. Again, no 49 CFR questions were found refernced in Deck Safety as a primary reference. What this did was allow a mariner to select under the Review Questions - Question Filters - Subcategory (3) ONLY either of the two choices provided for CFRs. This displayed ALL of the questions that existed in Deck Safety. BUT if a mariner entered the Review Questions screen by first selecting his/her Exam Code then selecting one of the two choices showed ALL of the questions for that CFR under their license, based upon our Review Questions disclaimer that the NMC never releases to anyone what question is designed for what license exam. However, this gave a mariner a total number of questions PER CFR but that caused a headache in having to figure out what VOLUME (1 or 2 for 33 CFR or 1 to 8 for 46 CFR) had to be refernced. It was determined that more detail was needed.

Second attempted solution: Looking at the two previous pages and the title labeled subCategory3, I inserted for each and every CFR question the appropriate listing. This resulted in 54 different entries listed under the Subcategory3 filter which was now TOO DETAILED. The problem that resulted was that mariners selecting a category would often run into the error message telling them that their are no questions for the filter selected which, although seems confusing, simply means that this CFR part is NOT refernced on your license exam based upon the LAPWARE test tempaltes and exam code you were using. Running into this error message was frustrating, so an alternative was designed.

Third attempted solution: (FINAL and APPLIED)

The middle of the road categorization for mariners that was found to be best, least confusing and only presented the error message described above, with a count of 0 as shown below in yellow, was to break down the Subcategory(3) definitions to properly reflect the Volumes as were be available in the exam room. Therefore, EACH question was then defined as follows (but without the spacing in the titles inserted here for easier reading:

LAPWARE, LLC		14BR	Supplemental	15BR	20BR	
CFR TITLE for SubCategory(3)		Total Questions	3M/2M	011X1	CM/MA	500T/1600T MA
33 CFR Volume 1 Parts 1-124 Subchapters	A-K	34	25	0	25	25
33 CFR Volume 2 Parts 125-199 Subchapters	L-S	178	165	166	31	144
TOTAL =		212	190	166	56	169
46 CFR Volume 1 Parts 1 - 40 Subchapters	A-D	264	32	19	110	39
46 CFR Volume 2 Parts 41 - 69 Subchapters	E-G	10	0	0	1	0
46 CFR Volume 3 Parts 70 - 89 Subchapter	H	22	6	2	6	5
46 CFR Volume 4 Parts 90-139 Subchapters	I-L	496	204	138	88	204
46 CFR Volume 5 Parts 140-155 Subchapters	N-P	31	6	6	15	4
46 CFR Volume 6 Parts 156-165 Subchapter	Q	44	21	0	21	21
46 CFR Volume 7 Parts 166-199 Subchapters	R-V	319	56	3	71	57
46 CFR Volume 8 Parts 200-499 Subchapters	A-K	3	3	3	3	0
TOTAL =		1189	328	171	315	330
TOTAL =		1401	518	337	371	499
		100.0%	37.0%	24.1%	26.5%	35.6%



As can be seen in the table on the bottom of the previous page, there are only TWO (2) listings for 33 CFR matching the TWO volumes allowed in the exam room. There are also only EIGHT (8) listings for the 46 CFR matching the EIGHT volumes allowed in the exam room. This, to me, makes more sense and allows the mariner to concentrate on the use of each volume separately, the way they would use it in the exam room.

NOW, please do not expect that **LAPWARE** will guide you from the question to the actual page on which the answer is found. BASED upon past references provided by NMC or created by **LAPWARE** those primary sections will be displayed BUT IT WILL BE UP TO THE MARINER to find the actual Paragraph and Subparagraph that provides the proper answer.

For example, 46 CFR 107.257 references MODU fire hose testing. Here are TWO questions NMC provides in the latest September 20, 2013 database release. This will show you some of the problems I have discovered, mariners are presented with and NMC will be informed of. NOTE, **LAPWARE** will NOT display the below paragraph/subsection BUT rather the 107 Part - page 1. YOU must look up the paragraph/subsection that provides the answer. The NMC's keyed answer is in **RED**.

When testing fire hoses on offshore drilling units, each hose must be subjected to a test pressure of at least _____.			
A) 100 psi	B) 110 psi	C) 120 psi	D) 150 psi
All fire hoses on mobile offshore drilling units must be tested to a pressure of at least _____.			
A) 100 psi	B) 110 psi	C) 120 psi	D) 130 psi

§ 107.257 Testing of fire hose.
 Each fire hose must be subjected to a test pressure equivalent to the maximum pressure to which it may be subjected during operation. However, each fire hose must be subjected to a pressure of at least 100 p.s.i.

It is quite obvious that the NMC has some problems to resolve and this will be discussed in detail at the September 2014 MERPAC meeting along with numerous other hard copy examples. LAPWARE's goal is to help make the NMC database as accurate as possible. That is what mariners pay for and deserve!

Finally, how do you use this CFR feature in LAPWARE?

I do NOT apologize for these seven (7) pages of explanation. I spent THREE (3) to come up with this analysis and deserve the right to explain all of the actions taken and why. Eventually this application will be made to all other Deck, and finally Engine, books.

Upon entering **LAPWARE** and selecting the **Review Questions** screen, you should select **SAFETY** from the left down arrow list box. From the right down arrow list box, if you leave it as the default of "All Questions" then you will see **ALL CFR questions** for the volume selected. But you must remember that ALL of these CFR questions very well will NOT apply to all license levels. Therefore, if you know, and **LAPWARE** provides, the **Exam Code** for your license you are sitting for select it and click on **GO**.

When the **Review Question** screen populates, click on **Question Filters** and in the **Subcategory(3)** field, select the desired Volume as shown on the bottom of the previous page and click **APPLY**. Note that on the previous page I have made a comparison as to the number of questions a mariner might be exposed to by selecting **All Questions** versus different exams. The question referencing CFRs, when displayed, will show a **VIEW PDF** above the question stem. Clicking on this will open that CFR VOLUME's PART REFERENCED by the question - page 1. If you select a wrong answer, the **REFERENCE** will be displayed for you to review. We have NOT looked up the actual answer for you BUT you now know which Volume's cover more NMC questions and where you should concentrate your study efforts. **ALL of this is subject to change by the NMC in new releases of databases, with added or deleted questions.**

Richard Plant