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United States Coast Guard

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NAVIGATION AND VESSEL INSPECTION NVIC NO. 04-08

Subj: MEDICAL AND PHYSICAL EVALUATION GUIDELINES FOR MERCHANT MARINER CREDENTIALS

Ref: (a) International Convention on Standards of Training, Certification and Watchkeeping for Seafarers, 1978, as amended (STCW)
(b) Title 46 United States Code, Subtitle II, Part E
(c) Title 46 Code of Federal Regulations (CFR) Chapter I, Subchapter B
(d) Title 46 CFR Parts 401 and 402

1. PURPOSE. This NVIC provides guidance for evaluating the physical and medical conditions of applicants for merchant mariner's documents (MMDs), licenses, certificates of registry and STCW endorsements, collectively referred to as "credentials." This NVIC also provides guidance for evaluating the physical and medical conditions of applicants for merchant mariner credentials (MMCs), if the Coast Guard begins issuing MMCs as supplementally proposed in 72 FR 3605 (January 25, 2007). The guidance in this NVIC should assist medical practitioners, the maritime industry, individual mariners and Coast Guard personnel in evaluating a mariner's physical and medical status to meet the requirements of references (a) through (d). This guidance is not a substitute for applicable legal requirements.

   a. Coast Guard practices with respect to the physical and medical evaluation process have considerably evolved, consistent with developments and advancements in modern medical practices, since NVIC 2-98 was published in 1998. This NVIC replaces NVIC 2-98. This NVIC puts current Coast Guard practices into writing, making them transparent for all to see and promoting their consistent application.

   b. The guidance in this NVIC applies to applicants for original, renewal and raise in grade credentials. Enclosure (1) specifically details the standards that apply to applicants for each of the various types of credentials.

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B	*	2	2											3												1
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NON-STANDARD DISTRIBUTION: See Page 6

2. ACTION. Medical personnel who conduct examinations of applicants for credentials, and Coast Guard personnel who review applications for credentials should use the information in this NVIC to ensure a complete and appropriate physical exam is conducted.

3. DIRECTIVES AFFECTED. NVIC 2-98 and National Maritime Center (NMC) Policy Letters 11-98 and 4-99 are canceled. The Marine Safety Manual (MSM), Vol. III, Chapter 4, COMDTINST M16000.8 (series) has not been updated since 1999, and it may contain some information that conflicts with the guidance in this NVIC. Until the MSM is updated, the guidance in this NVIC supersedes the MSM in any areas where they may conflict.

4. BACKGROUND.

   a. Reference (a) requires each country to establish standards of medical fitness for seafarers. Reference (a) applies to seagoing vessels, that is vessels which operate beyond the Boundary Line. It does not apply to inland mariners. References (b) and (c) require that mariners be physically able to perform their duties, using terms such as "general physical condition," "good health" and "of sound health." Reference (d) contains special requirements for registration as a Great Lakes Pilot, including the requirement to "pass a physical examination given by a licensed medical doctor." None of these references contains specific standards, with the exception of visual acuity and color vision, for determining if mariners are physically and medically qualified.

   b. Due to the lack of specificity in references (a) through (d), the physical and medical standards upon which credential applicants are evaluated and the medical tests and other information needed to make these evaluations may be unclear, leading to confusion and unnecessary delays. This lack of specificity may also lead to inconsistencies by medical practitioners conducting examinations of credential applicants, and ultimately by Coast Guard personnel determining whether credentials should be issued.

   c. This NVIC details the specific medical conditions that may be subject to further review, and the recommended data for evaluation of each condition to determine fitness for service. It also details physical ability guidelines and acceptable vision and hearing standards. The specificity of this NVIC is necessary to reduce the subjectivity of the physical and medical evaluation process and promote more consistent evaluations. This NVIC will also reduce the time required to process credential applications by helping eliminate the uncertainty that mariners may currently encounter as to the specific physical and medical information needed to be submitted to process their applications.

   d. The Coast Guard recognizes the need for qualified mariners and the potential shortage of mariners in the US and worldwide. This NVIC should not result in higher rates of disqualification for service, or in increased processing time for credential applications with physical and/or medical issues. To the contrary, the Coast Guard expects the process to be fairer and less subjective, and we anticipate application processing time to be reduced because all parties will know precisely what information is needed at the outset of the application process. The information contained in this NVIC places the historic and current practices in writing, making them transparent for all to see.

5. DISCUSSION.

a. This NVIC is a resource to assist medical personnel in performing examinations of applicants. It provides guidance on conditions that are subject to further review for issuance of credentials and the recommended medical supplemental tests and evaluations. Medical practitioners should provide comments and recommendations with regard to the ability of applicants to meet the appropriate standards in references (a) through (d). The final determination regarding issuance of all credentials lies with the Coast Guard.

b. Service on vessels may be arduous and impose unique physical and medical demands on mariners. The public safety risks associated with the medical and physical conditions of mariners on vessels are important considerations for the safe operation of vessels. In the event of an emergency, immediate response may be limited to the vessel's crew, and outside help may be delayed. Mariners must be medically and physically fit to perform their duties not only on a routine basis but also in an emergency.

c. This NVIC has been developed by the Coast Guard in consultation with experienced maritime community medical practitioners and industry stakeholders This NVIC reflects a synthesis of their recommendations, the requirements in references (a) through (d), and the recommendations of other federal transportation mode authorities as to appropriate physical and medical standards. The public was also afforded opportunity to comment on a draft of this NVIC. *See* 71 FR 56998 (September 28, 2006).

d. Enclosure (1) provides medical certification standards as set forth in reference (c). Enclosure (1) lists the standards that apply to applicants for each of the various types of credentials.

e. Enclosure (2) provides guidance for determining if mariners are physically able to perform their duties. For purposes of this NVIC, a medical condition is considered to cause "significant functional impairment" if it impairs the ability of the applicant to fully perform all of the physical abilities listed in this enclosure, or if it otherwise interferes with the ability of the applicant to fully perform the duties and responsibilities of the requested credential. Applicants with physical limitations who do not meet the related physical ability guidelines contained in enclosure (2) may be issued a credential with appropriate limitations as specified by the NMC.

f. Enclosure (3) contains a non-exhaustive list of medical conditions subject to further review and supplemental medical data that should be submitted for such medical review. Not all of the medical conditions listed in enclosure (3) require a waiver. Applicants with these medical conditions may be issued credentials with or without limitations, waivers and/or other conditions of issuance as specified by the NMC. This is further discussed in enclosure (6).

(1) Enclosure (3)(a) contains an index of the medical conditions listed in enclosure (3).

(2) Enclosure (3)(b) contains a table of abbreviations used in enclosure (3).

g. Enclosure (4) contains information about illegal substances and intoxicants, and a non-exhaustive list of medications that may be subject to further medical review in accordance with enclosure (6).

h. Enclosure (5) contains guidance for evaluating vision and hearing.

i. Enclosure (6) describes the medical review process.

j. Applicants for credentials should utilize form CG-719K or form CG-719K/E, as appropriate. Use of an equivalent form is acceptable if it includes the same information; however, an equivalent form should be submitted to the NMC for review prior to use. Submission of inadequate information will result in processing delays. Medical practitioners should review each page of the form. Forms and information about the medical review process are publicly available on the HOMEPORT internet website at: http://homeport.uscg.mil/mycg/portal/ep/browse.do?channelId=-25023.

k. Some individuals may have conditions or limitations that are not listed which would render them incapable of performing their duties. Others with a listed condition or limitation may be quite capable of working at sea without posing a risk to the ship, their shipmates, or themselves. While each applicant is evaluated individually, the conditions described in this NVIC are those which may be subject to further review in accordance with enclosure (6) before a credential can be issued.

l. In situations where the applicant does not meet the standards specified in references (a) through (d), as supplemented by the guidance contained herein, waivers, limitations, and/or conditions of issuance may be considered by the NMC. The supplemental medical records, consultations, and test results listed in enclosure (3) should be submitted. *See* 46 CFR 10.205(d)(4) and enclosure (6).

m. Maritime academies should ensure that new entrants into a cadet program are physically and medically qualified. A cadet with a condition listed in enclosure (3) should be advised as early as possible that he or she may not be physically or medically eligible upon graduation to receive a credential. Medical staff at an academy may consult with the NMC. While a final determination cannot be made until an application is submitted prior to graduation, the NMC can advise that based on the cadet's present condition, a credential would probably (or probably not) be issued if he or she were applying for a credential at the present time.

n. Nothing in this NVIC precludes marine employers from establishing more rigorous medical or physical ability guidelines.

6. DISCLAIMER. This guidance is not a substitute for applicable legal requirements, nor is it itself a regulation. It is not intended to nor does it impose legally-binding requirements on any party. It represents the Coast Guard's current thinking on this topic and is issued for guidance purposes to outline methods of best practice for compliance with the applicable law. You may use an alternative approach if the approach satisfies the requirements of the

applicable statutes and regulations. If you wish to discuss alternative approaches (you are not required to do so), you may contact the NMC Medical Evaluations Branch, which is responsible for implementing this guidance. Contact information for the NMC Medical Evaluations Branch is listed in paragraph 8, below. This NVIC complies with Executive Order 13422 and associated OMB Bulletin on Agency Good Guidance Practices. *See* 72 FR 3432 (Jan 25, 2007).

7. CHANGES. This NVIC will be posted on the internet at: http://www.uscg.mil/hq/g-m/nvic/index00.htm. It will also be posted on HOMEPORT at: http://homeport.uscg.mil/mycg/portal/ep/browse.do?channelId=-25023

Changes will be issued as necessary. Suggestions for improvements should be submitted in writing to Commandant (CG-5434) at the address specified in the header on the first page.

8. QUESTIONS. All questions regarding implementation of this NVIC should be directed to the NMC Medical Evaluations Branch at the following e-mail address: marinermedical@uscg.mil. The NMC can also be telephonically contacted at: 1-888-I-ASK-NMC.

9. ENVIRONMENTAL ASPECT AND IMPACT CONSIDERATIONS. Environmental considerations were examined in the development of this NVIC and have been determined to be not applicable.

10. FORMS/REPORTS. The forms called for in this Manual are available in USCG Electronic Forms on the Standard Workstation or on the Internet: http://www.uscg.mil/forms/, CG Central at http://cgcentral.uscg.mil/, and Intranet at http://cgweb2.comdt.uscg.mil/CGFORMS/Welcome.htm.

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Enclosures:
(1) Medical Certification Standards
(2) Physical Ability Guidelines
(3) Medical Conditions Subject to Further Review
  (3)(a) Index
  (3)(b) Table of Abbreviations
(4) Medications
(5) Vision and Hearing Standards
(6) Medical Review Process

Non-Standard Distribution:

B:a CG-522(1); CG-543(1); CG-546(1); CG-541(1); CG-11(1); CGPC(1);
C:e New Orleans(20); New York(20); Boston(10); Baltimore(10); Charleston(10); Houston-Galveston(10); Miami(10); Memphis(10); Toledo(10); Long Beach(10); San Francisco Bay(10); Portland(10); Puget Sound(10); Honolulu (10); Juneau(5); Anchorage(5); St. Louis(5)
D:l Maritime Administration; Military Sealift Command; USMMA
E:i National Maritime Center
C:y South Portland (1); Boston (1); New Haven (1); Staten Island (1); Atlantic Beach, FL (1); Philadelphia (1); Baltimore (1); Portsmouth (1); Atlantic Beach, NC (1); St. Petersburg (1); Charleston (1); Miami Beach (1); San Juan (1); Key West (1); Metairie (1); Mobile (1); Houston (1); Corpus Christi (1); Memphis (1); Louisville (1); Buffalo (1); Detroit (1); Sault Ste. Marie (1); Milwaukee (1); San Diego (1); San Pedro (1); San Francisco (1); Seattle (1); North Bend (1); Portland (1); Honolulu (1); Guam (1)
E:r East Moriches (1); Atlantic City (1); Nags Head (1); Galveston (1); Grand Haven (1)

MEDICAL CERTIFICATION STANDARDS

This table lists the standards contained in reference (c) that apply to applicants for each of the various types of credentials. If more than one credential is applied for at the same time, the most stringent of the requirements that apply to each credential should prevail.

CREDENTIAL APPLIED FOR: (ORIGINAL, RAISE IN GRADE OR RENEWAL)	**Demonstration of Physical Ability** **Enclosure (2)**	**General Medical Exam** **Enclosure (3)**	**Vision & Hearing Standards** **Enclosure (5)**	**Form** ***(approved equivalent form may be substituted)***
ALL DECK OFFICERS, INCLUDING PILOTS, REGARDLESS OF ROUTE, TONNAGE OR VESSEL TYPE	YES	YES	YES	CG-719K
ALL ENGINEERING OFFICERS, REGARDLESS OF ROUTE, TONNAGE, VESSEL TYPE, PROPULSION MODE OR PROPULSION POWER	YES	YES	YES	CG-719K
RADIO OFFICERS	YES	YES	YES	CG-719K
OFFSHORE INSTALLATION MANAGER, BARGE SUPERVISOR OR BALLAST CONTROL OPERATOR	YES	YES	YES	CG-719K
ENTRY-LEVEL RATING (Ordinary Seaman, Wiper & Steward's Department Food Handler) VALID FOR SERVICE ON SEAGOING VESSELS OF 200 GROSS REGISTER TONS OR MORE[1, 2, 3, 4,5]	YES	NO	NO	CG-719K/E (CG-719K may be substituted)
ENTRY-LEVEL RATING (Ordinary Seaman, Wiper & Steward's Department Food Handler) LIMITED TO SERVICE ON NON-SEAGOING VESSELS AND/OR ON SEAGOING VESSELS OF LESS THAN 200 GROSS REGISTER TONS[1, 2,5]	NO	NO	NO	N/A
QUALIFIED RATING (Able Seaman, QMED and Tankerman) [5]	YES	YES	YES	CG-719K
LIFEBOATMAN VALID FOR SERVICE ON SEAGOING VESSELS OF 200 GROSS REGISTER TONS OR MORE, INCLUDING CERTIFICATION AS PROFICIENT IN SURVIVIAL CRAFT UNDER STCW VI/2[2, 3, 4]	YES	NO	NO	CG-719K/E (CG-719K may be substituted)
LIFEBOATMAN LIMITED TO SERVICE ON NON-SEAGOING VESSELS AND/OR ON SEAGOING VESSELS OF LESS THAN 200 GROSS REGISTER TONS[2]	NO	NO	NO	N/A
CADET, STUDENT OBSERVERS, APPRENTICE ENGINEER AND APPRENTICE MATE VALID FOR SERVICE ON SEAGOING VESSELS OF 200 GROSS REGISTER TONS OR MORE[2, 3] STCW ENDORSEMENT FOR GMDSS AT-SEA MAINTAINER (certified under STCW Regulation IV/2)	YES	NO	NO	CG-719K/E (CG-719K may be substituted)

MEDICAL CERTIFICATION STANDARDS

CREDENTIAL APPLIED FOR: (ORIGINAL, RAISE IN GRADE OR RENEWAL)	**Demonstration of Physical Ability** **Enclosure (2)**	**General Medical Exam** **Enclosure (3)**	**Vision & Hearing Standards** **Enclosure (5)**	**Form** ***(approved equivalent form may be substituted)***
VALID FOR SERVICE ON VESSELS SUBJECT TO STCW[4] STCW ENDORSEMENT FOR PERSONS DESIGNATED TO PROVIDE MEDICAL CARE ONBOARD SHIP (certified under STCW Regulation VI/4), VALID FOR SERVICE ON VESSELS SUBJECT TO STCW[4]				
CADET, STUDENT OBSERVERS, APPRENTICE ENGINEERS AND APPRENTICE MATE LIMITED TO SERVICE ON NON-SEAGOING VESSELS AND/OR ON SEAGOING VESSELS OF LESS THAN 200 GROSS REGISTER TONS[2]	NO	NO	NO	N/A
RATING FORMING PART OF A NAVIGATIONAL WATCH (RFPNW) AND RATING FORMING PART OF AN ENGINEERING WATCH (RFPEW), VALID FOR SERVICE ON VESSELS SUBJECT TO STCW[4] ALL OTHER STCW ENDORSEMENTS, VALID FOR SERVICE ON VESSELS SUBJECT TO STCW[4]	YES	YES	YES	CG-719K

NOTES:

1. Food Handlers: Applicants for ratings authorizing the handling of food are required to produce a certificate from a physician stating that they are free from communicable disease**.** Guidelines for food handler certification are available on the HOMEPORT internet website at: http://homeport.uscg.mil/mycg/portal/ep/browse.do?channelId=-25023 This may, but is not required, to be documented on a CG-719K. At the certifying physician's discretion, it may be documented in any format, including letterhead, from the physician certifying that the applicant is disease free. *See* 46 CFR 12.25-20.

2. "Seagoing vessel" means a self-propelled vessel in commercial service that operates beyond the Boundary Line established by 46 CFR Part 7. It does not include a vessel that navigates exclusively on inland waters. *See* 46 CFR 15.1101.

3. 46 CFR 12.02-17(e) requires applicants for merchant mariners' documents who will be serving on seagoing vessels of 200 gross register tons or more to provide a "document issued by a qualified medical practitioner attesting the applicant's medical fitness to perform the functions for which the document is issued." Successful completion of a CG-719K/E or approved equivalent form satisfies this requirement (See encl. (2)).

4. *See* 46 CFR 10.202(k), 12.02-7(f), 15.103(d)-(g) & 15.1103 for applicability of STCW. *See also* NVIC 7-00, "Clarification of the Application of STCW, 1978, As Amended, To Vessels Less Than 200 Gross Register Tons (GRT)."

5. Staff Officers: Applicants for certificates of registry are required to hold an MMD (entry level rating or qualified rating), and they are required to satisfy the physical/medical requirements of that MMD, if any. *See* 46 CFR 10.805(b). *See also* paragraph #5 on next page for certificates of registry for staff officers.

MEDICAL CERTIFICATION STANDARDS

1. ORIGINAL LICENSES AND MMDs ENDORSED WITH QUALIFIED RATINGS. In accordance with 46 CFR 10.205(d), 12.05-5, 12.15-5 & 13.125, all applicants for an original license and/or MMDs endorsed with qualified ratings of AB, QMED and Tankerman must present to the Coast Guard a completed Coast Guard physical examination form, or the equivalent, executed by a qualified medical practitioner. This examination must have been completed prior to the submission of the application for the credential(s), and not more than 12 months prior to issuance of the credential(s).

2. RENEWAL OF LICENSES AND MMDs ENDORSED WITH QUALIFIED RATINGS. In accordance with 46 CFR 10.209(d) & 12.02-27(d) , applicants for renewal of all licenses and/or MMDs endorsed with qualified ratings of AB, QMED and Tankerman, must submit certification by a licensed physician, physician's assistant, or nurse practitioner that they are in good health and have no physical impairment or medical condition which would render them incompetent to perform the ordinary duties of the credentials. This certification must address visual acuity and hearing in addition to general physical condition, and must have been completed within the previous 12 months from the date of renewal application. Applicants may meet these requirements by submitting a completed CG-719K or approved equivalent form.

3. RAISE IN GRADE OF LICENSES. In accordance with 46 CFR 10.207(e), applicants for raise in grade of a license who have not had a physical examination for an original license or renewal of a license within the previous 3 years (from the date of application for the raise in grade) must submit a certification by a licensed physician, physician assistant, or nurse practitioner that he or she is in good health and has no physical impairment or medical condition which would render him or her incompetent to perform the ordinary duties of the license(s) applied for. Applicants may meet these requirements by submitting a completed CG-719K or approved equivalent form. There are no physical requirements for raise in grade of licenses if the applicant had a physical examination for an original license or renewal of a license within the previous 3 years from the date of application for the raise in grade.

4. STCW ENDORSEMENTS. An exam meeting the guidelines in enclosures (2) through (5) satisfies the STCW requirements for medical fitness. No exam is necessary for an STCW endorsement if the applicant has already completed an exam meeting the guidelines in enclosures (2) through (5) for the credential underlying the STCW endorsement. For example, an AB who applies for an RFPNW endorsement two years after being issued his/her AB MMD need not complete another exam. An ordinary seaman (OS) who applies for an RFPNW endorsement two years after being issued his/her OS MMD should complete an exam meeting the guidelines in enclosures (2) through (5) (on a CG-719K or approved equivalent form) if the exam he/she previously completed to obtain his/her OS MMD only met the guidelines in enclosure (2).

5. CERTIFICATES OF REGISTRY FOR STAFF OFFICERS. In accordance with 46 CFR 10.805(b), applicants for certificates of registry are required to hold an MMD. Although there are no specified physical or medical requirements for certificates of registry, applicants are required to satisfy the physical/medical requirements of the underlying MMD, if any.

MEDICAL CERTIFICATION STANDARDS

6. MARINERS' DUTIES. The duties and responsibilities that a mariner may perform can vary widely according to the credential. Mariners should be physically capable of performing all potential duties associated with their credential(s).

7. SUPPLEMENTS AND MEDICATIONS. Supplements and over-the-counter (OTC) medications may interact with prescription drugs or cause hazardous side effects on their own. Medical practitioners should question applicants about their use of these substances. See paragraph 6 of enclosure (3) and enclosure (4).

8. SHORT-TERM CONDITIONS. Short-term conditions may render a mariner not physically or medically competent at the time of application, even though the condition is being appropriately treated and will be of relative short duration. An example of this would be a broken arm. In these circumstances, the Coast Guard should advise the applicant of his options. The credential may, but is not required to, be issued or renewed, provided the applicant immediately deposits the credential with the Coast Guard until he or she meets the physical and medical standards. *See* 46 CFR 5.201. Mariners always have the choice not to apply for a credential until their condition has improved, or they may choose to renew a credential for continuity purposes only until such time as their condition improves. *See* 46 CFR 10.209(g) and 12.02-27(g).

9. RENEWAL OF CREDENTIAL(S) FOR CONTINUITY PURPOSES. For conditions that are under treatment but a lengthy period of recovery is likely, the mariner should renew the credential for continuity purposes to retain validity and avoid having to re-initiate the entire application process, which may include retaking the complete examination. When the mariner recovers to the point where he or she is medically fit or may be considered for a waiver, the mariner may apply for restoration of full operating authority. Original credentials should not be issued until the applicant has totally recovered or recovered to an extent where he or she may be granted a medical waiver, limitations, or conditions of issuance of a credential as appropriate. *See* 46 CFR 10.209(g) and 12.02-27(g).

10. MEDICAL EXAMS, TESTS AND DEMONSTRATIONS OF PHYSICAL ABILITY. All exams, tests and demonstrations must be performed, witnessed or reviewed by a physician, physician assistant, or nurse practitioner licensed by a state in the U.S., a U.S. possession, or a U.S. territory. Exams, tests and demonstrations performed, witnessed or reviewed by holders of foreign medical licenses and chiropractors or naturopathic doctors are not accepted under current regulations. All applicants who require a general medical exam must be physically examined. Examinations based solely on documentary review, and/or patient history review, are unacceptable. See 46 CFR 10.205(d), 10.207(e),10.209(d), 12.02-27(d), 12.05-5, 12.15-5 & 13.125. Individuals who submit false information to the Coast Guard may be subject to criminal prosecution under 18 USC 1001.

11. FIRST CLASS PILOTS AND THOSE INDIVIDUALS "SERVING AS" PILOTS

    a. 46 CFR 10.709 requires that every licensed first class pilot serving as a pilot on a vessel of 1600 GRT or more shall have a thorough physical examination each year while holding the first class pilot license or endorsement, and that this physical examination must meet the same requirements for originally obtaining the license or endorsement as specified in 46 CFR 10.205(d). 46 CFR 15.812 (b)(3) & (c) require that other licensed individuals who "serve as"

pilots on certain types of vessels must have a current physical examination in accordance with the provisions of 46 CFR 10.709.[1] A physical examination meeting the guidelines in enclosures (2) through (5) satisfies these regulatory requirements.

b. 46 CFR 10.709 also requires that first class pilots on vessels of 1600 GRT or more shall provide the Coast Guard with copies of their most recent physical examination upon request**.** This includes those individuals who "serve as" pilots in accordance with 46 CFR 15.812(b)(3) & (c). The Coast Guard published a notice in the Federal Register on September 28, 2006 which constitutes the request, under 46 CFR 10.709(e), to require all first class pilots on vessels of 1600 GRT or more, and all other individuals who "serve as" pilots in accordance with 46 CFR 15.812(b)(3) & (c), to provide a copy of their annual physical examination to the Coast Guard. *See* 71 FR 56999**.** The report of physical examination will be reviewed in accordance with this NVIC.

c. First class pilots, and all other individuals who "serve as" pilots in accordance with 46 CFR 15.812(b)(3) & (c), should annually submit a CG-719K or approved equivalent form to meet this requirement. This should be submitted to the Coast Guard no later than 30 calendar days after completion of the physical examination each year. The annual physical examination must, in accordance with 46 CFR 10.709(d), be completed by the first day of the month following the first anniversary of the individual's most recent satisfactorily completed physical examination.

d. As published in the Federal Register on December 13, 2006, all pilots on vessels of 1600 GRT or more, and all other individuals who "serve as" pilots on certain types of vessels of 1600 GRT or more, in accordance with 46 CFR 15.812(b)(3) & (c), are also required to provide the passing results of their annual chemical test for dangerous drugs to the Coast Guard, unless they provide satisfactory evidence that they have met the exceptions stated in Title 46 CFR 16.220(c) (e.g. participation in a random drug testing program). *See* 71 FR 74553.

e. The Coast Guard may initiate appropriate administrative action in the event any first class pilot - or any other individual "serving as" a pilot (as described above) - does not meet the physical examination requirements specified in 46 CFR 10.205(d), up to and including suspension or revocation of the mariner's credential in accordance with 46 CFR Part 5. The Coast Guard may also initiate appropriate administrative action, up to and including suspension or revocation of the mariner's credential in accordance with 46 CFR Part 5, if any first class pilot - or any other individual "serving as" a pilot - fails to submit their annual physical examination, or the passing results of their annual chemical test for dangerous drugs (unless exempted as discussed in paragraph (d) above), to the Coast Guard.

f. Individuals with pilot licenses, pilot endorsements, master licenses and mate licenses (and individuals applying for those credentials) who do not in fact serve as a first class pilot or otherwise "serve as" a pilot in accordance with 46 CFR 15.812(b)(3) & (c) are not required to submit an annual physical examination to the Coast Guard; however, these individuals must submit an annual physical examination before serving as a first class pilot or otherwise "serving as" a pilot in accordance with 46 CFR 15.812(b)(3) & (c).

MEDICAL CERTIFICATION STANDARDS

12. GREAT LAKES PILOTS

a. Application for original or renewal registration as a Great Lakes Registered Pilot must be made on Form CG-4509. See 46 CFR 401.200(a). Only the "Application for Registration" portion (pages one & two) is needed to meet this requirement. The Director, Office of Great Lakes Pilotage at Coast Guard Headquarters (Director) has designated CG-719K as the required form for physical examinations replacing the previous requirement to use page 3 of CG-4509.

b. A Great Lakes Registered Pilot must be "physically competent to perform the duties of a U.S. Registered Pilot and meet the medical requirements prescribed by the Commandant." See 46 CFR 401.210(a)(4). The annual physical examination required by 46 CFR 402.210(a) must be reported "on the form furnished by the Director" and must be given by a "licensed medical doctor". A copy of the CG-719K submitted annually to the Director will satisfy all original, renewal and annual physical reporting requirements. The Registered Pilot will be responsible for submitting the original CG-719K to any other Coast Guard offices requiring the form for annual reporting and/or credentialing purposes. It is incumbent upon a Great Lakes Registered Pilot to inform the Director of a debilitating medical condition that develops between annual examinations.

c. The Director may suspend and/or revoke or refuse to register or renew a Great Lakes Registered Pilot's registration when that Pilot does not continuously meet the standards of this NVIC. See 46 CFR 401.210(a), 401.240 & 401.250. Evidence obtained from any physical examination may be used by the Coast Guard to suspend and/or revoke any underlying credential in accordance with 46 CFR Part 5.

[1] Individuals who "serve as" pilots on vessels of less than 1600 GRT in accordance with 46 CFR 15.812(b)(2) do not have an annual physical examination requirement.

PHYSICAL ABILITY GUIDELINES

1. Credential applicants should be physically able to perform assigned shipboard functions and meet the physical demands that would reasonably arise during an emergency response. As used in this context, an *"emergency response"* refers to emergency evolutions such as abandon ship and firefighting, and the basic procedures to be followed by each mariner.

2. If the examining medical practitioner doubts the applicant's ability to meet the guidelines contained within this table, and for all applicants with a Body Mass Index (BMI) of 40.0 or higher, the practitioner should require that the applicant demonstrate the ability to meet the guidelines. This does not mean, for example, that the applicant must actually don an exposure suit, pull an uncharged 1.5 inch diameter 50' fire hose with nozzle to full extension, or lift a charged 1.5 inch diameter fire hose to fire fighting position. Rather, the medical practitioner may utilize alternative measures to satisfy himself or herself that the applicant possesses the ability to meet the guidelines in the third column. A description of the methods utilized by the medical practitioner should be reported on the CG-719K or CG-719K/E (or approved equivalent form) as appropriate. All demonstrations of ability should be performed by the applicant without assistance. Any prosthesis normally worn by the applicant and other aid devices such as prescription glasses may be used by the applicant in all practical demonstrations except when the use of such would prevent the proper wearing of mandated personal protective equipment (PPE).

   a. Those applicants where only a physical demonstration of abilities is required (719-K/E) may substitute a physical exam (719-K) . Enclosure (1) details the relevant standards applicable to each type of credential.

   b. The BMI calculation is discussed on the Centers for Disease Control and Prevention website: http://www.cdc.gov/nccdphp/dnpa/bmi/adult_BMI/about_adult_BMI.htm

3. The Coast Guard recognizes that the guidelines contained in this table refer to shipboard conditions and tasks that may not be applicable to all vessels, e.g. a crewmember on a 79-foot towing or small passenger vessel may not be required to carry a 1.5 inch diameter fire hose with nozzle 50 feet; however, for the most part, credentials issued by the Coast Guard are not vessel specific, and they provide authority to work on different types and sizes of vessels, with each vessel having its own equipment and operating conditions. An applicant (along with his or her employer, as appropriate) who is unable to meet any of the guidelines contained within this table may propose alternatives that reflect the conditions applicable to his or her operating environment. Such proposals should be made in writing to the NMC, which will give full consideration to each proposal on an individual, case-by-case basis. *See* paragraph 10 of enclosure (6).

PHYSICAL ABILITY GUIDELINES

4. If an applicant is unable to meet any of the guidelines contained within this table, the examining medical practitioner should provide information on the degree or severity of the applicant's inability to meet the guidelines. Applicants with physical limitations who do not meet the related physical ability guidelines in this table may be issued a credential with appropriate limitations upon evaluation by the Coast Guard. Mariners and marine employers are responsible for restricting the mariner's duties to the limitations of the credential.

   a. Any prosthesis or similar device used to successfully meet the physical standards should be noted on the credential(s), along with a requirement that the individual must use the prosthesis or similar device while acting under the authority of the credential(s).

PHYSICAL ABILITY GUIDELINES

SHIPBOARD TASKS, FUNCTION, EVENT OR CONDITION:	RELATED PHYSICAL ABILITY:	THE EXAMINER SHOULD BE SATISFIED THAT THE APPLICANT:
Routine movement on slippery, uneven and unstable surfaces.	Maintain balance (equilibrium).	Has no disturbance in sense of balance.
Routine access between levels.	Climb up and down vertical ladders and stairways.	Is able, without assistance, to climb up and down vertical ladders and stairways.
Routine movement between spaces and compartments.	Step over high door sills and coamings, and move through restricted accesses.	Is able, without assistance, to step over a door sill or coaming of 24 inches (61 centimeters) in height. Able to move through a restricted opening of 24 inches by 24 inches (61 centimeters by 61 centimeters).
Open and close watertight doors, hand cranking systems, open/close valve wheels.	Manipulate mechanical devices using manual and digital dexterity, and strength.	Is able, without assistance, to open and close watertight doors that may weigh up to 55 pounds (25 kilograms). Should be able to move hands/arms to open and close valve wheels in vertical and horizontal directions; rotate wrists to turn handles. Reach above shoulder height.

PHYSICAL ABILITY GUIDELINES

SHIPBOARD TASKS, FUNCTION, EVENT OR CONDITION:	RELATED PHYSICAL ABILITY:	THE EXAMINER SHOULD BE SATISFIED THAT THE APPLICANT:
Handle ship's stores.	Lift, pull, push and carry a load.	Is able, without assistance, to lift at least a 40 pound (18.1 kilogram) load off the ground, and to carry, push or pull the same load.
General vessel maintenance.	Crouch (lowering height by bending knees); kneel (placing knees on ground); and stoop (lowering height by bending at the waist). Use hand tools such as spanners, valve wrenches, hammers, screwdrivers, pliers.	Is able, without assistance, to grasp, lift and manipulate various common shipboard tools.
Emergency response procedures, including escape from smoke-filled spaces.	Crawl (the ability to move the body with hands and knees); feel (the ability to handle or touch to examine or determine differences in texture and temperature).	Is able, without assistance, to crouch, kneel and crawl, and to distinguish differences in texture and temperature by feel.
Stand a routine watch.	Stand a routine watch.	Is able, without assistance, to intermittently stand on feet for up to four hours with minimal rest periods.
React to visual alarms and instructions, emergency response procedures.	Distinguish an object or shape at a certain distance.	Fulfills the eyesight standards for the merchant mariner credential(s) applied for. *See footnote 1 of this table & enclosure (5) of this NVIC.*

PHYSICAL ABILITY GUIDELINES

SHIPBOARD TASKS, FUNCTION, EVENT OR CONDITION:	RELATED PHYSICAL ABILITY:	THE EXAMINER SHOULD BE SATISFIED THAT THE APPLICANT:
React to audible alarms and instructions, emergency response procedures.	Hear a specified decibel (dB) sound at a specified frequency.	Fulfills the hearing capacity standards for the merchant mariner credential(s) applied for. *See footnote 1 of this table & enclosure (5) of this NVIC.*
Make verbal reports or call attention to suspicious or emergency conditions.	Describe immediate surroundings and activities, and pronounce words clearly.	Is capable of normal conversation.
Participate in firefighting activities.	Be able to carry and handle fire hoses and fire extinguishers.	Is able, without assistance, to pull an uncharged 1.5 inch diameter, 50' fire hose with nozzle to full extension, and to lift a charged 1.5 inch diameter fire hose to fire fighting position.
Abandon ship.	Use survival equipment.	Has the agility, strength and range of motion to put on a personal flotation device and exposure suit without assistance from another individual.

[1] The vision and hearing standards listed in enclosure (5) are not applicable to entry level ratings, nor to cadet, student observer, apprentice engineer or apprentice mate ratings. As discussed in enclosure (1), examining medical practitioners should use form CG-719K/E to document their examination of applicants for these ratings. Examining medical practitioners should note any concerns with the eyesight and/or hearing capacity of applicants for these ratings on the CG-719K/E so that the Coast Guard can make an appropriate determination as to the fitness of the individual for the rating(s). Examining medical practitioners may attach additional sheets to the CG-719K/E for this purpose.

MEDICAL CONDITIONS SUBJECT TO FURTHER REVIEW

1. Active Condition. If not specified as "history of" in this table, a condition must be currently active to be subject to further review. For purposes of this enclosure, "active" means that the applicant is currently under treatment for the condition, or that the applicant is currently under observation for possible worsening or recurrence of the condition, or that the condition is currently present.

2. History. As used in this enclosure, the term "history of" means a previous diagnosis or treatment of a medical condition by a healthcare provider, even once in the applicant's life, unless otherwise specified in this table. It includes all active and present medical conditions.

3. Significant Functional Impairment. As used in this enclosure, the term "significant functional impairment" means that the medical condition impairs the applicant's ability to fully perform the physical abilities listed in enclosure (2), or that it otherwise interferes with the ability of the applicant to fully perform the duties and responsibilities of the credential.

4. Status Reports, Evaluation Reports and Consultations. All time frames specified with respect to the evaluation data listed in this table are measured from the date that the application is received by the Coast Guard. For example, if the table calls for a medical test that is no more than 90 days old, the test should have been completed no more than 90 days before the date that the application for the credential is received by the Coast Guard.

For most conditions, this table does not contain a specific time frame as to how old a status report, evaluation report or consultation (of whatever type) may be. For all active conditions (as defined in paragraph 1 above), the status report, evaluation report or consultation should have been completed no more than one year prior to the date the application is received by the Coast Guard.

For conditions that are not active but for which the table indicates that a "history of" the condition should be reported (as defined in paragraph 2 above), the appropriate time frame, if not specified in the table, depends on what is medically relevant given the individual circumstances of the applicant's condition. Medical providers should contact NMC if they have any questions about how recent a status report, evaluation report or consultation should be. *See* 46 CFR 10.205(d)(4).

5. Other conditions. Any medical condition or physical impairment not otherwise specified in this enclosure which may cause significant functional impairment or sudden incapacitation, or which might otherwise compromise shipboard safety, including required response in an emergency situation, may be subject to further review. Any medical condition or physical impairment not otherwise specified in this enclosure which may result in gradual deterioration of performance of duties, or which otherwise poses a threat to the health and safety of the applicant or others, may be subject to further review.

6. Medications, Vitamins and Dietary Supplements. Mariners should not perform a safety sensitive function on any vessel while under the influence of any substance that may negatively impact their performance. To that end, mariners are strongly

warned that some prescription medications, over-the-counter medications, vitamins and dietary supplements, alone or in combination with other substances, may adversely affect an individual's ability to perform critical functions and place the individual at risk of sudden incapacitation. Mariners are strongly advised to seek the advice of a physician before taking any medications, vitamins, or dietary supplements.

Mariners should read and follow the manufacturer's warnings and directions, and the warnings and directions of their own physicians, in order to minimize the risk of adverse affects. Notwithstanding, little is known about the effects of some supplements and their interaction with other substances. Therefore, the risks associated with their use cannot be determined. See enclosure (4).

7. Alternate Evaluation Data. At the time of publication of this NVIC, the evaluation data listed in this table is what the Coast Guard recommends should be submitted for each condition. Submission of other than the recommended evaluation data may result in processing delay.

   Documentation of evaluation data specified in this table for all applicable medical conditions subject to further review should be submitted with each application, unless otherwise specified by the NMC. Mariners, including first class pilots and those individuals "serving as" pilots (as well as Great Lakes pilots) who are required to submit annual physical examinations to the Coast Guard, may be issued a letter by the NMC specifying the extent of the evaluation data, if any, that should be submitted to the Coast Guard for any medical conditions that have been previously reported to, and evaluated by, the NMC.

   The Coast Guard will consider alternative approaches proposed by applicants regarding substitution of evaluation data for the recommended evaluation data listed in this table, if the alternative approach satisfies the requirements of the applicable statutes and regulations. If you wish to discuss alternative approaches, you should contact the NMC Medical Evaluations Branch, which is responsible for implementing this guidance. Contact information for the NMC Medical Evaluations Branch is listed in paragraph 8 on page 5 of the NVIC.

MEDICAL CONDITIONS SUBJECT TO FURTHER REVIEW

No.	MEDICAL CONDITION	RECOMMENDED EVALUATION DATA
HEAD, FACE, NECK, AND SCALP		
1	Fistula of neck, either congenital or acquired, including tracheotomy	Copies of all pertinent consultations, CT/MRI reports (and films, if available); plus if surgery has been done, copies of the operative and pathology reports; if malignant, an oncology evaluation as well.
2	Deformities of the face or head that may interfere with the proper fitting and wearing of respiratory protection	Copies of all pertinent consultations, CT/MRI reports (and films, if available) and quantitative respiratory fit testing; plus if surgery has been done, copies of the operative and pathology reports; if malignant, an oncology evaluation as well.
3	History of tumor within the last 5 years	Local expansion and impingement on adjacent structures is the initial manifestation of most of these tumors. The extensive resection and resultant loss of structures vital for speech, swallowing (and control of secretions) and equipment fit will be important post-therapy concerns in medical certification of affected mariners. Appropriate candidates for waiver are those mariners whose tumors have been completely removed in a manner that has not disturbed the surrounding structures needed to perform duties. Impairment of speech, secretion control, and equipment fit are not considered favorably for waiver. Confirmation of the histology is necessary. In addition, documentation of return of function of "quality" speech, swallowing/control of secretions, and equipment fit are required. Basel cell carcinomas with only local excisions do not require this evaluation.
MOUTH AND THROAT		
4	Any malformation or condition, including stuttering, that impairs voice communication	Refer for speech pathology consult.

MEDICAL CONDITIONS SUBJECT TO FURTHER REVIEW

No.	MEDICAL CONDITION	RECOMMENDED EVALUATION DATA
EARS		
5	Acute or chronic disease that may disturb equilibrium	Document hearing loss, labyrinthine dysfunction, and facial nerve weakness or paralysis. Audiology (to include speech discrimination in each ear) and neurology evaluations are required. Surgical and pathology reports are also required if applicable.
6	Mastoid Fistula	Document hearing loss, labyrinthine dysfunction, and facial nerve weakness or paralysis. Audiology (to include speech discrimination in each ear) and otolaryngology evaluations are required. Surgical and pathology reports are also required if applicable.
7	Mastoiditis, acute or chronic	Document hearing loss, labyrinthine dysfunction, and facial nerve weakness or paralysis. Audiology (to include speech discrimination in each ear) and otolaryngology evaluations are required. Surgical and pathology reports are also required if applicable.
8	History of Acoustic Neuroma	A request for waiver may be submitted 6 months after successful removal of the tumor provided the sequelae are within acceptable limits. Specifically, the tumor should have been 2.5 cm diameter or less; unilateral, postoperative vertigo should have completely resolved; and any damage to cranial nerves should allow full eye movement without strabismus or tracing deficit and acceptable mask sealing. Psychomotor performance should be within normal limits. Document hearing loss, labyrinthine dysfunction, and facial nerve weakness or paralysis. Audiology (to include speech discrimination in each ear), neurology and neurosurgery evaluations are required. Surgical and pathology reports are also required.
9	Otitis Externa or Otitis Media that may progress to impaired hearing or become incapacitating	Document hearing loss, labyrinthine dysfunction, and facial nerve weakness or paralysis. Audiology (to include speech discrimination in each ear) and otolaryngology evaluations are required. Surgical and pathology reports are also required if applicable.
10	History of episodic disorders of dizziness or disequilibrium within the last 10 years	Document hearing loss, labyrinthine dysfunction, and facial nerve weakness or paralysis. Audiology (to include speech discrimination in each ear) and neurology evaluations are required. Surgical and pathology reports are also required if applicable.
EYES, GENERAL		
11	Monocular vision	See Enclosure (4). Uncompensated monocular vision is generally not waiverable. Contact NMC for guidance. Note: Applicant should be at best corrected visual acuity before evaluation.

MEDICAL CONDITIONS SUBJECT TO FURTHER REVIEW

No.	MEDICAL CONDITION	RECOMMENDED EVALUATION DATA
12	Ophthalmic pathology reflecting a serious systemic disease (e.g., diabetic and hypertensive retinopathy)	Ophthalmology consultation, to include dilated fundus examination, legible drawings of bilateral optic discs noting mathematical estimates of the cup-to-disc ratio, and optic disc, report of slit lamp examination, visual field test battery, confirmation of the exclusion of underlying systemic pathology, confirmation that visual acuity meets standards, presence of color vision abnormalities, and gonioscopy.
13	Any other acute or chronic pathological condition of either eye or adnexa that interferes with the proper function of an eye	Ophthalmology consultation, to include dilated fundus examination, legible drawings of bilateral optic discs noting mathematical estimates of the cup-to-disc ratio, and optic disc, report of slit lamp examination, visual field test battery, confirmation of the exclusion of underlying systemic pathology, confirmation that visual acuity meets standards, presence of color vision abnormalities, and gonioscopy.
14	Diplopia	Ophthalmology consultation, to include dilated fundus examination, legible drawings of bilateral optic discs noting mathematical estimates of the cup-to-disc ratio, and optic disc, report of slit lamp examination, visual field test battery, confirmation of the exclusion of underlying systemic pathology, confirmation that visual acuity meets standards, presence of color vision abnormalities, and gonioscopy.
15	Pterygium occluding 50% of the cornea and affecting central vision	If less than 50% of the cornea and not affecting central vision; if more than 50% requires ophthalmology consultation, to include refraction measurement and visual acuity, visual field test battery, corneal topography, slit lamp examination.
16	Refractive Surgery within past 6 months	Ophthalmology consultation, to include refraction measurement and visual acuity, corneal topography, slit lamp examination looking at the quantity, quality, and extent of incisions, contrast sensitivity testing. Provide completed, type and date of procedure, statement as to any adverse effects or complications (halo, glare, haze, rings, etc.). Note: Waiver package should be submitted at least, i.e. not sooner than, 4 weeks after the surgery, with a minimum of two stable visual acuities measured, at least two weeks apart.
17	Chorioretinitis; Coloboma	Ophthalmology consultation, to include dilated fundus examination, legible drawings of bilateral optic discs noting mathematical estimates of the cup-to-disc ratio, and optic disc, report of slit lamp examination, visual field test battery, confirmation of the exclusion of underlying systemic pathology, confirmation that visual acuity meets standards, presence of color vision abnormalities, and gonioscopy.

MEDICAL CONDITIONS SUBJECT TO FURTHER REVIEW

No.	MEDICAL CONDITION	RECOMMENDED EVALUATION DATA
18	Corneal Ulcer or Dystrophy	Ophthalmology consultation, to include dilated fundus examination, legible drawings of bilateral optic discs noting mathematical estimates of the cup-to-disc ratio, and optic disc, report of slit lamp examination, visual field test battery, confirmation of the exclusion of underlying systemic pathology, confirmation that visual acuity meets standards, presence of color vision abnormalities, and gonioscopy.
19	Optic Atrophy or Neuritis	Ophthalmology consultation, to include dilated fundus examination, legible drawings of bilateral optic discs noting mathematical estimates of the cup-to-disc ratio, and optic disc, report of slit lamp examination, visual field test battery, confirmation of the exclusion of underlying systemic pathology to include neurology consultation to rule out multiple sclerosis, confirmation that visual acuity meets standards, presence of color vision abnormalities, and gonioscopy.
20	Retinal Degeneration or Detachment	Ophthalmology consultation, to include dilated fundus examination, legible drawings of bilateral optic discs noting mathematical estimates of the cup-to-disc ratio, and optic disc, report of slit lamp examination, visual field test battery, confirmation of the exclusion of underlying systemic pathology, confirmation that visual acuity meets standards, presence of color vision abnormalities, and gonioscopy.
21	Retinitis Pigmentosa	Ophthalmology consultation, to include dilated fundus examination, legible drawings of bilateral optic discs noting mathematical estimates of the cup-to-disc ratio, and optic disc, report of slit lamp examination, visual field test battery, confirmation of the exclusion of underlying systemic pathology, confirmation that visual acuity meets standards, presence of color vision abnormalities, and gonioscopy.
22	Papilledema or Uveitis	Ophthalmology consultation, to include dilated fundus examination, legible drawings of bilateral optic discs noting mathematical estimates of the cup-to-disc ratio, and optic disc, report of slit lamp examination, visual field test battery, confirmation of the exclusion of underlying systemic pathology, confirmation that visual acuity meets standards, presence of color vision abnormalities, and gonioscopy. In addition provide applicable documentation regarding presence of associated diseases causing uveitis, such as sarcoidosis, ankylosing spondylitis, tuberculosis, syphilis and toxoplasmosis. These conditions should be excluded and the following initial studies should be completed: CXR, Syphilis Serology, PPD, Lyme serology, HLA B 27, Angiotensin Converting Enzyme, and ANA.

MEDICAL CONDITIONS SUBJECT TO FURTHER REVIEW

No.	MEDICAL CONDITION	RECOMMENDED EVALUATION DATA
23	Glaucoma (treated or untreated) or Increased Intraocular Ocular Pressure (IOP)	Waivers may be granted if visual field loss is minimal and IOP is controlled at normal levels without miotic drugs. Miotic drugs are incompatible with night operations due to the inability of the pupil to dilate to admit sufficient light. Ophthalmology consultation is required anytime there is one or more documented IOPs > or equal to 22 mmHg; there is an IOP difference between the eyes of 4 mmHg or greater; there is a optic nerve cup-to-disc ratio > 0.5 or an asymmetrical cup-to-disc ratio between the eyes with a difference of > 0.2; or a visual field deficit is suspected; and when there is a recent change of visual acuity, ocular trauma, uveitis, or iritis. Optometrist or ophthalmologist should confirm the IOP with applanation tonometry. Opththalmology IOPs should be documented from a Goldman's applanation tonometer, not from a non-contact tonometer "puff test" or Tono-pen, and should be obtained in the AM and PM for two days. Consultation reports should include dilated fundus examination, legible drawings of bilateral optic discs noting mathematical estimates of the cup-to-disc ratio, and optic disc, report of slit lamp examination, visual field test battery, and gonioscopy. If a low IOP of 7 mm Hg or less is confirmed by Goldman applanation tonometry an ophthalmology consultation should be obtained. FOLLOW-UP: Mariners with proven glaucoma should be evaluated quarterly at least for the first year of treatment unless the consultant ophthalmologist specifies less frequent. If the mariner is determined to have elevated IOP with suspected glaucomatous changes, he or she should be measured and evaluated every 6 months by an ophthalmologist or optometrist for those mariners labeled with ocular hypertension or glaucoma suspect. If the mariner has elevated IOP without any suspected glaucomatous changes, opthalmological evaluation should be conducted annually.
24	Macular Degeneration	Ophthalmology consultation, to include dilated fundus examination, legible drawings of bilateral optic discs noting mathematical estimates of the cup-to-disc ratio, and optic disc, report of slit lamp examination, visual field test battery, confirmation of the exclusion of underlying systemic pathology, confirmation that visual acuity meets standards, presence of color vision abnormalities, and gonioscopy.
25	Macular Detachment	Ophthalmology consultation, to include dilated fundus examination, legible drawings of bilateral optic discs noting mathematical estimates of the cup-to-disc ratio, and optic disc, report of slit lamp examination, visual field test battery, confirmation of the exclusion of underlying systemic pathology, confirmation that visual acuity meets standards, presence of color vision abnormalities, and gonioscopy.

MEDICAL CONDITIONS SUBJECT TO FURTHER REVIEW

No.	MEDICAL CONDITION	RECOMMENDED EVALUATION DATA
26	History of Tumors	Ophthalmology consultation, to include dilated fundus examination, legible drawings of bilateral optic discs noting mathematical estimates of the cup-to-disc ratio, and optic disc, report of slit lamp examination, visual field test battery, confirmation of the exclusion of underlying systemic pathology, confirmation that visual acuity meets standards, presence of color vision abnormalities, and gonioscopy.
27	Vascular Occlusion	Ophthalmology consultation, to include dilated fundus examination, legible drawings of bilateral optic discs noting mathematical estimates of the cup-to-disc ratio, and optic disc, report of slit lamp examination, visual field test battery, confirmation of the exclusion of underlying systemic pathology, confirmation that visual acuity meets standards, presence of color vision abnormalities, and gonioscopy.
28	Retinopathy	Ophthalmology consultation, to include dilated fundus examination, legible drawings of bilateral optic discs noting mathematical estimates of the cup-to-disc ratio, and optic disc, report of slit lamp examination, visual field test battery, confirmation of the exclusion of underlying systemic pathology, confirmation that visual acuity meets standards, presence of color vision abnormalities, and gonioscopy.
29	Disparity in size or reaction to light (afferent pupillary defect) or nonreaction to light in either eye, acute or chronic due to pathologic condition	Neurophthalmology consultation, to include dilated fundus examination, legible drawings of bilateral optic discs noting mathematical estimates of the cup-to-disc ratio, and optic disc, report of slit lamp examination, visual field test battery, confirmation of the exclusion of underlying systemic pathology, confirmation that visual acuity meets standards, presence of color vision abnormalities, and gonioscopy.
30	Nystagmus	Neurology consultation. If nystagmus has been present for a number of years and has not recently worsened, it is usually necessary to consider only the impact that the nystagmus has upon visual acuity. If visual acuity is affected, submit ophthalmology consultation.
31	Synechiae, anterior or posterior	Ophthalmology consultation, to include dilated fundus examination, legible drawings of bilateral optic discs noting mathematical estimates of the cup-to-disc ratio, and optic disc, report of slit lamp examination, visual field test battery, confirmation of the exclusion of underlying systemic pathology, confirmation that visual acuity meets standards, presence of color vision abnormalities, and gonioscopy.

MEDICAL CONDITIONS SUBJECT TO FURTHER REVIEW

No.	MEDICAL CONDITION	RECOMMENDED EVALUATION DATA
32	Absence of conjugate alignment in any quadrant	Ophthalmology consultation, to include any history of ambliopia (lazy eye) or diplopia, any patching of one/both eyes, or previous eye surgery, and include the following tests: full ocular muscle balance testing, Verhoeff vision testing apparatus (VTA), or Randot depth perception testing, testing for diplopia in the nine cardinal directions, pupillary exam, cover test (both near and far), alternate cover test, near point of conversion (NPC), red lens test, Maddox Rod test, Worth four-dot exam, and AO vectograph.
33	Inability to converge on a near object	Ophthalmology consultation, to include measurement of convergence insufficiency distance.
34	Paralysis with loss of ocular motion in any direction	Ophthalmology consultation, to include any history of ambliopia (lazy eye) or diplopia, any patching of one/both eyes, or previous eye surgery, and include the following tests: full ocular muscle balance testing, Verhoeff vision testing apparatus (VTA), or Randot depth perception testing, testing for diplopia in the nine cardinal directions, pupillary exam, cover test (both near and far), alternate cover test, near point of conversion (NPC), red lens test, Maddox Rod test, Worth four-dot exam, and AO vectograph.
LUNGS AND CHEST		
35	Asthma symptoms requiring emergency treatment in the past 2 years	Internal medicine and/or pulmonology consultation to include complete pulmonary function testing (PFT). Baseline, post bronchodilator, and methacholine/provocative testing results. Examiner statement on applicant's asthma severity class according to National Asthma Education and Prevention Program Expert Panel Report 2: Guidelines for the Diagnosis and Management of Asthma (http://www.nhlbi.nih.gov/health/prof/lung/asthma/practgde.htm). Examiner statement addressing any sudden severe exacerbations, severe persistent or moderate persistent asthma, any hospitalizations or intubations for exacerbations, or recurrent oral steroid use for exacerbations. Note: Non-sedating antihistamines including loratadine or fexofenadine may be used while underway, after adequate individual experience has determined that the medication is well tolerated without significant side effects.
36	Chronic bronchitis, emphysema, or COPD	Internal medicine and/or pulmonology consultation to include pulmonary function testing (PFT) with bronchodilator challenge, chest x-ray or CT to exclude bullae, and EKG. Exercise stress ECG with pulse oximetry is required to assess pulmonary function during exertion if FVC or FEV1 are less than 75% predicted value.

MEDICAL CONDITIONS SUBJECT TO FURTHER REVIEW

No.	MEDICAL CONDITION	RECOMMENDED EVALUATION DATA
37	Abscesses	Internal medicine and/or pulmonology consultation to include pulmonary function testing (PFT), imaging studies, if applicable, operative/pathology/microbiology studies, if applicable, current treatment, and documentation of resolution or stability of the condition.
38	Mycotic Disease	Internal medicine and/or pulmonology consultation to include pulmonary function testing (PFT), imaging studies, if applicable, operative/pathology/microbiology studies, if applicable, current treatment, and documentation of resolution or stability of the condition.
39	Tuberculosis or Untreated Latent Tuberculosis Infection (LTI)	Internal medicine and/or pulmonology consultation with documentation of complete recovery from infection, including post-convalescent negative sputum cultures, if applicable, CXR. Note: Applicants with LTI and no evidence of disease receiving treatment do not require a waiver. Active TB is not waiverable until 6 months after treatment is completed.
40	Fistula, Bronchopleural, to include Thoracostomy	Internal medicine and/or pulmonology consultation to include pulmonary function testing (PFT), imaging studies, if applicable, operative/pathology/microbiology studies, if applicable, current treatment, and documentation of resolution or stability of the condition.
41	Lobectomy with loss of functional capacity	Internal medicine and/or pulmonology consultation to include pulmonary function testing (PFT), copies of operative reports. Exercise stress ECG with pulse oximetry is required to assess pulmonary function during exertion if FVC or FEV1 are less than 75% predicted value.
42	Pulmonary Fibrosis	Internal medicine and/or pulmonology consultation to include pulmonary function testing (PFT), and imaging studies. Exercise stress ECG with pulse oximetry is required to assess pulmonary function during exertion if FVC or FEV1 are less than 75% predicted value.
43	Sleep Disorders	Submit all pertinent medical information and current status report from a qualified sleep medicine specialist. Include sleep study with a polysomnogram, use of medications and titration study results. If surgically treated, should have post operative polysomnogram to document cure or need for further treatment.
44	Acute fibrinous pleurisy	Internal Medicine and/or pulmonology consultation to include pulmonary function testing (PFT), imaging studies, if applicable, operative/pathology/microbiology studies, if applicable, current treatment, and documentation of resolution or stability of the condition. Exercise stress ECG with pulse oximetry is required to assess pulmonary function during exertion if FVC or FEV1 are less than 75% predicted value.

MEDICAL CONDITIONS SUBJECT TO FURTHER REVIEW

No.	MEDICAL CONDITION	RECOMMENDED EVALUATION DATA
45	Empyema	Internal Medicine and/or pulmonology consultation to include pulmonary function testing (PFT), copies of operative reports, imaging studies, if applicable, operative/pathology/microbiology studies, if applicable, current treatment, and documentation of resolution or stability of the condition. Exercise stress ECG with pulse oximetry is required to assess pulmonary function during exertion if FVC or FEV1 are less than 75% predicted value.
46	Pleurisy with effusion	Internal Medicine and/or pulmonology consultation to include pulmonary function testing (PFT), imaging studies, if applicable, operative/pathology/microbiology studies, if applicable, current treatment, and documentation of resolution or stability of the condition. Exercise stress ECG with pulse oximetry is required to assess pulmonary function during exertion if FVC or FEV1 are less than 75% predicted value.
47	Pneumonectomy	Thoracic surgery consultation with status report, CXR, PFTs, copies of operative reports. Exercise stress ECG with pulse oximetry is required to assess pulmonary function during exertion if FVC or FEV1 are less than 75% predicted value.
48	History of tumors or cysts of the lung, pleura or mediastinum within the last 5 years	Oncology consultation with status report, CXR, PFTs, copies of operative reports if history of surgery. Exercise stress ECG with pulse oximetry is required to assess pulmonary function during exertion if FVC or FEV1 are less than 75% predicted value.
48a	History of malignant tumors of the breast within the last 5 years	Oncology consultation with status report, diagnostic imaging studies and copies of operative reports if history of surgery.
49	Sarcoid, if more than minimal involvement or if symptomatic	Submit all pertinent medical records, pulmonology consultations to include characteristics and severity of symptoms, names and dosages of medications and side effects. Contact NMC for guidance.

MEDICAL CONDITIONS SUBJECT TO FURTHER REVIEW

No.	MEDICAL CONDITION	RECOMMENDED EVALUATION DATA
50	Traumatic pneumothorax within past 3 months or history of spontaneous or recurrent non-traumatic pneumothorax	Chest x-ray, thin-cut CT scan demonstrating full lung expansion, PFTs, copy of operative report and thoracic surgery consult if surgically treated. Exercise stress ECG with pulse oximetry is required to assess pulmonary function during exertion if FVC or FEV1 are less than 75% predicted value. Note: A history of a single episode of spontaneous pneumothorax is considered disqualifying for medical certification until there is x-ray evidence of resolution and until it can be determined that no condition that would be likely to cause recurrence is present (i.e., residual blebs). An applicant who has sustained a repeat pneumothorax normally is not eligible for certification until surgical interventions are carried out to correct the underlying problem. A person who has such a history can be evaluated 3 months after the surgery.
51	Bronchiectasis	Internal Medicine and/or pulmonology consultation to include pulmonary function testing (PFT), imaging studies, if applicable, operative/pathology/microbiology studies, if applicable, current treatment, and documentation of resolution or stability of the condition. Exercise stress ECG with pulse oximetry is required to assess pulmonary function during exertion if FVC or FEV1 are less than75% predicted value.
HEART		
52	Symptomatic Bradycardia (<50 bpm)	Exercise rhythm strip. If unable to achieve HR >100 BPM or double resting HR then GXT and 24-hour Holter monitor are required. Note: GXT should be Bruce Protocol to at least 8 METS with a functional cardiac stress test. Pharmacologic Stress Tests are not acceptable.
53	Left Bundle Branch Block	Cardiology consultation, PA and lateral CXR, GXT, echocardiogram, and exercise radionuclide scan. Note: GXT should be Bruce Protocol to at least 8 METS with a functional cardiac stress test. Pharmacologic Stress Tests are not acceptable.
54	Acquired Right Bundle Branch Block	Cardiology consultation, PA and lateral CXR, GXT, echocardiogram, and exercise radionuclide scan. Note: GXT should be Bruce Protocol to at least 8 METS with a functional cardiac stress test. Pharmacologic Stress Tests are not acceptable.

MEDICAL CONDITIONS SUBJECT TO FURTHER REVIEW

No.	MEDICAL CONDITION	RECOMMENDED EVALUATION DATA
55	Implanted Pacemaker	Cardiology consultation, PA and lateral CXR, GXT, echocardiogram, and exercise radionuclide scan. Detailed reports of surgical procedures as well as cerebral and coronary arteriography and other major diagnostic studies are of prime importance; evaluation of pacemaker function to include description and documentation of underlying rate and rythym with the pacer disabled or at its lowest setting, programmed pacemaker parameters, surveillance record, and exclusion of myopotential inhibition and pacemaker induced hypotension, powerpack data including beginning of life (BOL) and elective replacement indicator/end of life (ERI/EOL). Note: GXT should be Bruce Protocol to at least 8 METS with a functional cardiac stress test. Pharmacologic Stress Tests are not acceptable.
56	Premature Atrial Contractions	If PAC frequency of occurrence is > 10 of any 50 beats, 10% of any one hour, or 1% of 24 hours of monitoring, or applicant is symptomatic cardiology consultation, 24-hour Holter monitor, echocardiogram, and GXT are required. Note: GXT should be Bruce Protocol to at least 8 METS with a functional cardiac stress test. Pharmacologic Stress Tests are not acceptable.
57	Premature Ventricular Contractions	If PVC frequency of occurrence is > 10 of any 50 beats, 10% of any one hour, or 1% of 24 hours of monitoring, or applicant is symptomatic cardiology consultation, 24-hour Holter monitor, echocardiogram, and GXT are required. Note: GXT should be Bruce Protocol to at least 8 METS with a functional cardiac stress test. Pharmacologic Stress Tests are not acceptable.
58	2nd Degree AV Block Mobitz I	Cardiology consultation, PA and lateral CXR, GXT, and exercise radionuclide scan. Note: GXT should be Bruce Protocol to at least 8 METS with a functional cardiac stress test. Pharmacologic Stress Tests are not acceptable.
59	2nd Degree AV Block Mobitz II	Cardiology consultation, PA and lateral CXR, GXT, and exercise radionuclide scan. Note: GXT should be Bruce Protocol to at least 8 METS with a functional cardiac stress test. Pharmacologic Stress Tests are not acceptable.
60	3rd Degree AV Block	Cardiology consultation, PA and lateral CXR, GXT, and exercise radionuclide scan. Note: GXT should be Bruce Protocol to at least 8 METS with a functional cardiac stress test. Pharmacologic Stress Tests are not acceptable.

MEDICAL CONDITIONS SUBJECT TO FURTHER REVIEW

No.	MEDICAL CONDITION	RECOMMENDED EVALUATION DATA
61	Preexcitation Syndrome	Cardiology consultation, 24-hour Holter monitor, GXT and echocardiogram. Note: GXT should be Bruce Protocol to at least 8 METS with a functional cardiac stress test. Pharmacologic Stress Tests are not acceptable.
62	History of Radio Frequency Ablation	3-month wait, then cardiology consultation, 24-hour Holter monitor, GXT and echocardiogram. Note: GXT should be Bruce Protocol to at least 8 METS with a functional cardiac stress test. Pharmacologic Stress Tests are not acceptable.
63	History of Supraventricular Tachycardia (3 or more consecutive non-ventricular ectopic beats)	Cardiology consultation, 24-hour Holter monitor, GXT, TFTs, and echocardiogram. If evidence of abnormalities exercise radionuclide scan and cardiac catheterization are required and surgical/ablative procedure reports if performed. Note: GXT should be Bruce Protocol to at least 8 METS with a functional cardiac stress test. Pharmacologic Stress Tests are not acceptable.
64	History of syncope, greater than one episode, within the last 5 years	Cardiology consultation, neurology consultation, 24-hour Holter; bilateral carotid US.
65	History of Atrial Fibrillation within the last 5 years	Document previous workup for CAD and structural heart disease, to include cardiology consultation addressing use of anticoagulants and functional capacity, 24-hour Holter monitor, GXT and echocardiogram. Note: GXT should be Bruce Protocol to at least 8 METS with a functional cardiac stress test. Pharmacologic Stress Tests are not acceptable.
66	Chronic Atrial Fibrillation	Cardiology consultation addressing use of anticoagulants and functional capacity, 24-hour Holter monitor, GXT and echocardiogram. Note: GXT should be Bruce Protocol to at least 8 METS with a functional cardiac stress test. Pharmacologic Stress Tests are not acceptable.
67	Paroxysmal/Lone Atrial Fibrillation	Cardiology consultation addressing use of anticoagulants and functional capacity, 24-hour Holter monitor, GXT and echocardiogram. Note: GXT should be Bruce Protocol to at least 8 METS with a functional cardiac stress test. Pharmacologic Stress Tests are not acceptable.
68	History of Angina Pectoris	Cardiology consultation, hospital admission summaries if applicable, coronary catheterization report, statement of functional capacity, blood chemistries, including total cholesterol, HDL, LDL, and triglycerides, echocardiogram with Doppler flow study, maximal myocardial perfusion exercise stress test no sooner than 6-months post event.

MEDICAL CONDITIONS SUBJECT TO FURTHER REVIEW

No.	MEDICAL CONDITION	RECOMMENDED EVALUATION DATA
69	History of Myocardial Infarction	Cardiology consultation, hospital admission summaries if applicable, coronary catheterization report, statement of functional capacity, blood chemistries, including total cholesterol, HDL, LDL, and triglycerides, echocardiogram with Doppler flow study, maximal myocardial perfusion exercise stress test no sooner than 1 month post event. Note: Acceptable treatment of applicants includes all Food and Drug Administration approved diuretics, alpha-adrenergic blocking agents, beta-adrenergic blocking agents, calcium channel blocking agents, angiotension converting enzyme (ACE inhibitors) agents, and direct vasodilators. Centrally acting agents (e.g. reserpine, guanethidine, guanadrel, guanabenz, and methyldopa) are usually not acceptable. The use of flecainide is unacceptable when there is evidence of left ventricular dysfunction or recent myocardial infarction.
70	History of Atherectomy; CABG; PTCA; Rotoblation; or stent	Cardiology consultation, hospital admission summaries if applicable, coronary catheterization report, statement of functional capacity, blood chemistries, including total cholesterol, HDL, LDL, and triglycerides, echocardiogram with Doppler flow study, maximal myocardial perfusion exercise stress test no sooner than 1 month post event, 6 months for CABG.
71	Hypertension, systolic BP > 160 or diastolic BP > 100, with or without medication	ECG, serum chemistries, lipid profile, UA, documentation of family history of CAD, DM, hypertension, CVA, hyperlipidemia, and renal disease. Note: An initial reading exceeding 160/100 should be confirmed by three blood pressure readings separated by at least 24 hours each. Acceptable treatment of applicants includes all Food and Drug Administration approved diuretics, alpha-adrenergic blocking agents, beta-adrenergic blocking agents, calcium channel blocking agents, angiotension converting enzyme (ACE inhibitors) agents, and direct vasodilators. Centrally acting agents (e.g. reserpine, guanethidine, guanadrel, guanabenz, and methyldopa) are usually not acceptable.
72	History of Valvular Disease, non-specified	Cardiology consultation, GXT, 2-D M-mode echocardiogram with Doppler flow study and 24-hour Holter monitor. Note: GXT should be Bruce Protocol to at least 8 METS with a functional cardiac stress test. Pharmacologic Stress Tests are not acceptable.
73	Aortic and Mitral Insufficiency	Cardiology consultation, GXT, 2-D M-mode echocardiogram with Doppler flow study and 24-hour Holter monitor. Note: GXT should be Bruce Protocol to at least 8 METS with a functional cardiac stress test. Pharmacologic Stress Tests are not acceptable.

MEDICAL CONDITIONS SUBJECT TO FURTHER REVIEW

No.	MEDICAL CONDITION	RECOMMENDED EVALUATION DATA
74	History of Valve Replacement	Cardiology consultation addressing cardiac function, evidence of embolic phenomena, arrythmias, structural abnormalities, or ischemia. GXT, 2-D M-mode echocardiogram with Doppler flow study and 24-hour Holter monitor, INR values for 6 months prior to application, copy of operative report.
75	History of Valvuloplasty	Cardiology consultation, GXT, 2-D M-mode echocardiogram with Doppler flow study, 24-hour Holter monitor, and copy of operative report.
76	History of Heart Transplant	Generally not waiverable. Contact NMC for guidance.
77	Cardiac decompensation or cardiomyopathy	Cardiology consultation, GXT, 2-D M-mode echocardiogram with Doppler flow study and 24-hour Holter monitor.
78	Congenital heart disease accompanied by cardiac enlargement, ECG abnormality, or evidence of inadequate oxygenation	Cardiology consultation addressing cardiac function, evidence of embolic phenomena, arrhythmias, structural abnormalities, or ischemia. GXT, 2-D M-mode echocardiogram with Doppler flow study and 24-hour Holter monitor.
79	CHF, Hypertrophy or dilatation of the heart	Cardiology consultation, GXT, 2-D M-mode echocardiogram with Doppler flow study and 24-hour Holter monitor.
80	Pericarditis, endocarditis, or myocarditis	Cardiology consultation addressing cardiac function, GXT, 2-D M-mode echocardiogram with Doppler flow study and 24-hour Holter monitor, and documentation of resolution or stability of the condition.
81	Anti-tachycardia devices or implantable defibrillators	Generally not waiverable. Contact NMC for guidance.
VASCULAR SYSTEM		
82	History of Aortic Aneurysm, Abdominal or Thoracic	Surgery and cardiology consultations, hospital admission summaries and operative reports if applicable, coronary catheterization report, statement of functional capacity, blood chemistries, including total cholesterol, HDL, LDL, and triglycerides, echocardiogram with Doppler flow study, maximal myocardial perfusion exercise stress test.

MEDICAL CONDITIONS SUBJECT TO FURTHER REVIEW

No.	MEDICAL CONDITION	RECOMMENDED EVALUATION DATA
84	Symptomatic Arteriosclerotic Vascular disease	Cardiology consultation, hospital admission summaries if applicable, coronary catheterization report, statement of functional capacity, blood chemistries, including total cholesterol, HDL, LDL, and triglycerides, echocardiogram with Doppler flow study, maximal myocardial perfusion exercise stress test.
85	Buerger's Disease	Internal Medicine consultation to include documentation of normal extremity function and exercise tolerance.
86	Thrombophlebitis	Internal Medicine consultation to include documentation of normal exercise tolerance.
ABDOMEN, VISCERA AND ANUS CONDITIONS		
87	Cirrhosis- Alcoholic	Internal medicine or gastroenterology consultation with status report, to include history of encephalopathy; LFTs, albumin; bilirubin; and CBC. See also medical conditions 186 and 186a.
88	Cirrhosis- Non-Alcoholic	Internal medicine or gastroenterology consultation with status report, to include history of encephalopathy; LFTs, albumin; bilirubin; and CBC.
89	History of acute Hepatitis A, B, or E	Internal medicine or gastroenterology consultation with status report, to include history of encephalopathy; LFTs, albumin; bilirubin; and CBC. Note: Not disqualifying if 6 months have elapsed since onset, LFTs have returned to normal, and applicant is asymptomatic. For acute hepatitis B, HB surface antigen should have cleared
90	History of chronic Hepatitis B	Internal medicine or gastroenterology consultation with status report, to include history of encephalopathy; LFTs, albumin; bilirubin; and CBC, liver biopsy, hepatitis replication studies (HBeAg and HB DNA).
91	History of acute Hepatitis C	Internal medicine or gastroenterology consultation with status report, hepatitis replication studies (RNA viral load testing).
92	History of chronic Hepatitis C	Internal medicine or gastroenterology consultation with status report, to include history of encephalopathy; LFTs, albumin; bilirubin; and CBC, liver biopsy, hepatitis replication studies (RNA viral load testing).
93	History of Liver Transplant	Internal medicine or gastroenterology consultation with status report, to include history of encephalopathy; LFTs, albumin; bilirubin; and CBC, name and dosage of drugs and side effects.

MEDICAL CONDITIONS SUBJECT TO FURTHER REVIEW

No.	MEDICAL CONDITION	RECOMMENDED EVALUATION DATA
94	History of Colon/Colorectal Cancer within the last 5 years	Oncology consultation documenting staging, histologic diagnosis, TMN tumor stage, any post-operative therapies, operative/ pathology reports, results of restaging, and CEA and CBC.
95	History of Other Gastrointestinal Malignancies within the last 5 years	Oncology consultation documenting staging, histologic diagnosis, TMN tumor stage, any post-operative therapies, operative/ pathology reports, results of restaging, and CEA and CBC.
96	History of Gastrointestinal Bleeding	Internal medicine or gastroenterology consultation with confirmation that applicant is free of symptoms, endoscopic or other evidence that the bleeding source has healed, copies of operative reports if applicable.
SKIN DISEASES		
97	Collagen Vascular Diseases causing significant functional impairment	Dermatology consultation, documenting use of medications, ability to wear protective equipment, and ability to perform duties.
98	Skin Diseases causing significant functional impairment	Dermatology consultation, documenting use of medications, ability to wear protective equipment, and ability to perform duties.
99	History of Malignant Skin Tumors within the last 5 years	Dermatology consultation documenting staging, histologic diagnosis, Breslow depth, tumor stage, any post-operative therapies, ability to wear protective equipment, ability to perform duties, and operative/ pathology reports. Malignant melanoma requires CXR, other imaging studies, if appropriate, and laboratory tests. Basel cell carcinomas with only local excisions do not require this evaluation.

MEDICAL CONDITIONS SUBJECT TO FURTHER REVIEW

No.	MEDICAL CONDITION	RECOMMENDED EVALUATION DATA
100	Neurofibromatosis with Central Nervous System involvement	Dermatology consultation, documenting use of medications, ability to wear protective equipment, and ability to perform duties. Neurology consult.
GENITAL-URINARY SYSTEM		
101	Renal Replacement Therapy/Dialysis	Nephrology consultation, BUN, Ca, PO4, creatinine, electrolytes, and treatment plan. Note: Chronic dialysis is generally not waiverable. Contact NMC for guidance.
102	History of Renal Transplant	Nephrology consultation, BUN, Ca, PO4, creatinine, electrolytes,, operative report, and discharge summary, etiology of primary renal disease, evaluation of graft versus host disease, CBC, BUN, creatinine.
102a	Chronic Renal Insufficiency or Chronic Renal Failure (Glomerilar Filtration Rate (GFR) < 30 mL/min	Nephrology consultation, BUN, Ca, PO4, creatinine, GFR, electrolytes, and treatment plan. Note: Chronic dialysis is generally not waiverable. Contact NMC for guidance.
103	Acute Nephritis	Nephrology consultation, BUN, Ca, PO4, creatinine, electrolytes, and treatment plan.
104	Chronic Nephritis	Nephrology consultation, BUN, Ca, PO4, creatinine, electrolytes, and treatment plan.
105	Nephrosis	Nephrology consultation, BUN, Ca, PO4, creatinine, electrolytes, and treatment plan.
106	Bladder Cancer within the last 5 years	Oncology or urology consultation documenting staging, histologic diagnosis, tumor stage, any post-operative therapies, operative/ pathology reports, results of restaging, and abdomen-pelvis CT scan, cystoscopy, and contrast study of urinary tract.
107	History of Neoplasms of the kidneys, bladder, or genitourinary tract within the last 5 years	Oncology or urology consultation documenting staging, histologic diagnosis, tumor stage, any post-operative therapies, operative/ pathology reports, results of restaging, and abdomen-pelvis CT scan, cystoscopy, and contrast study of urinary tract.
108	History of Prostatic Carcinoma within the last 5 years	Oncology or urology consultation documenting staging, histologic diagnosis, tumor stage (Gleason grade), any post-operative therapies, operative/ pathology reports, results of restaging, and abdomen-pelvis CT/MRI reports, bone scan reports, and PSA, including post-op PSAs. Document applicant's physical limitations, bladder competence, and any medications.
109	Polycystic Kidney Disease	Nephrology consultation, BUN, Ca, PO4, creatinine, electrolytes, head MRI or MRA, and treatment plan.

MEDICAL CONDITIONS SUBJECT TO FURTHER REVIEW

No.	MEDICAL CONDITION	RECOMMENDED EVALUATION DATA
110	Pyelitis, Pyelonephritis or Pylonephrosis	Nephrology consultation, BUN, Ca, PO4, creatinine, electrolytes, and treatment plan.
111	DELETED	INTENTIONALLY BLANK.
112	Hydronephrosis with impaired renal function	Nephrology consultation, BUN, Ca, PO4, creatinine, electrolytes, and treatment plan.
113	Renal Calculus - Multiple Episodes or Retained Stones	Urology consultation, BUN, Ca, PO4, creatinine, electrolytes, imaging studies, if appropriate, and treatment plan. Note: Ureteral stent is acceptable if functioning without sequela.
114	Ureteral or Vesical Calculus-with or without stent	Urology consultation, BUN, Ca, PO4, creatinine, electrolytes, imaging studies, if appropriate, and treatment plan. Note: Ureteral stent is acceptable if functioning without sequela.
115	History of Gender Reassignment	Complete medical history and records to determine that there is no medical, psychiatric, or psychological condition. Medical disqualification is considered appropriate during the time of hormonal manipulation until such time as there is a stabilization of the physiological response on maintenance medication.
MUSCULOSKELETAL		
116	Amputations at or proximal to the metatarsal or metacarpal joints, or any amputation of a thumb or multiple digits on the same extremity	Physical medicine, occupational medicine or orthopedic consultation to include functional status (degree of impairment as measured by strength, range of motion at joints adjacent to amputation, pain), medications with side effects and all pertinent medical reports. Note: When prostheses are used or additional control devices are installed in a vessel to assist the amputee, the credential(s) will be limited to require that the devices (and, if necessary, even the specific vessel) must always be used when acting under the authority of the credential(s).
117	Progressive atrophy of any muscles	Neurology consultation to include functional status (degree of impairment as measured by strength, range of motion, pain), medications with side effects and all pertinent medical studies.

MEDICAL CONDITIONS SUBJECT TO FURTHER REVIEW

No.	MEDICAL CONDITION	RECOMMENDED EVALUATION DATA
118	Deformities, either congenital or acquired causing significant functional impairment and/or interfering with the ability to wear required personal protective equipment	Physical medicine, occupational medicine or orthopedic consultation to include functional status (degree of impairment as measured by strength, range of motion, pain), medications with side effects and all pertinent medical studies.
119	Limitation of motion of major joint causing significant functional impairment	Physical medicine, occupational medicine or orthopedic consultation to include functional status (degree of impairment as measured by strength, range of motion, pain), medications with side effects and all pertinent medical studies.
120	Neuralgia or Neuropathy, chronic or acute causing significant functional impairment	Neurology consultation to include functional status (degree of impairment as measured by strength, range of motion, pain), medications with side effects and all pertinent medical studies.
121	Sciatica causing significant functional impairment	Neurology or orthopedic consultation to include sufficient documentation to exclude specific causes of back pain, functional status (degree of impairment as measured by strength, range of motion, pain), medications with side effects and all pertinent medical studies.
122	Osteomyelitis, acute or chronic, with or without draining fistula(e) causing significant functional impairment	Orthopedic consultation to include functional status (degree of impairment as measured by strength, range of motion, pain), medications with side effects and all pertinent medical studies.
123	Tremors causing significant functional impairment	Neurology consultation to include functional status (degree of impairment as measured by strength, range of motion, pain), medications with side effects and all pertinent medical studies.
124	Osteoarthritis causing significant functional impairment	Rheumatology consultation to include functional status (degree of impairment as measured by strength, range of motion, pain), medications with side effects and all pertinent medical studies. Note: Waiver considered for an applicant who is taking aspirin, ibuprofen, naproxen, similar nonsteroidal anti-inflammatory drugs (NSAID), or COX-2 inhibitors; however, the applicant should present evidence documenting that the underlying condition for which the medicine is being taken is not in itself disabling and the applicant has been on therapy (NSAID) long enough to have established that the medication is well tolerated and has not produced adverse side effects.

MEDICAL CONDITIONS SUBJECT TO FURTHER REVIEW

No.	MEDICAL CONDITION	RECOMMENDED EVALUATION DATA
125	Rheumatoid Arthritis and Variants causing significant functional impairment	Rheumatology consultation to include functional status (degree of impairment as measured by strength, range of motion, pain), medications with side effects and all pertinent medical studies. Note: Waiver considered for an applicant who is taking aspirin, ibuprofen, naproxen, similar nonsteroidal anti-inflammatory drugs (NSAID), or COX-2 inhibitors; however, the applicant should present evidence documenting that the underlying condition for which the medicine is being taken is not in itself disabling and the applicant has been on therapy (NSAID) long enough to have established that the medication is well tolerated and has not produced adverse side effects.
126	Acute Polymyositis	Neurology consultation to include functional status (degree of impairment as measured by strength, range of motion, pain), medications with side effects and all pertinent medical studies.
127	Dermatomyositis	Rheumatology consultation to include functional status (degree of impairment as measured by strength, range of motion, pain), medications with side effects and all pertinent medical studies. Note: Waiver considered for an applicant who is taking aspirin, ibuprofen, naproxen, similar nonsteroidal anti-inflammatory drugs (NSAID), or COX-2 inhibitors; however, the applicant should present evidence documenting that the underlying condition for which the medicine is being taken is not in itself disabling and the applicant has been on therapy (NSAID) long enough to have established that the medication is well tolerated and has not produced adverse side effects.
128	Lupus Erythematosus	Internal medicine consultation to include functional status (degree of impairment as measured by strength, range of motion, pain), medications with side effects and all pertinent medical studies.
129	Periarteritis Nodosa	Internal medicine consultation to include functional status (degree of impairment as measured by strength, range of motion, pain), medications with side effects and all pertinent medical studies.
130	Ankylosis, curvature, or other marked deformity of the spinal column causing significant functional impairment	Submit a status report to include functional status (degree of impairment as measured by strength, range of motion, pain), medications with side effects and all pertinent medical reports.
131	History of Intervertebral Disc Surgery within the last 5 years	Orthopedic, physical medicine or neurosurgery consultation to include functional status (degree of impairment as measured by strength, range of motion, pain), medications with side effects, all pertinent medical studies, restrictions and prognosis.

MEDICAL CONDITIONS SUBJECT TO FURTHER REVIEW

No.	MEDICAL CONDITION	RECOMMENDED EVALUATION DATA
132	Cerebral Palsy, Muscular Dystrophy, Myasthenia Gravis, or other Myopathies	Neurology consultation to include functional status (degree of impairment as measured by strength, range of motion, pain), medications with side effects and all pertinent medical studies.
133	Other disturbances of musculoskeletal function, congenital or acquired causing significant functional impairment	Orthopedic, physical medicine or neurology consultation to include functional status (degree of impairment as measured by strength, range of motion, pain), medications with side effects, all pertinent medical studies, restrictions and prognosis. Note: The paraplegic whose paralysis is not the result of a progressive disease process is considered in much the same manner as an amputee.
134	Symptomatic herniation of intervertebral disc	Orthopedic, physical medicine or neurosurgery consultation to include functional status (degree of impairment as measured by strength, range of motion, pain), medications with side effects, all pertinent medical studies, restrictions and prognosis.
135	History of recurrent symptomatic back pain causing significant functional impairment within the last 5 years	Orthopedic, physical medicine or neurosurgery consultation to include functional status (degree of impairment as measured by strength, range of motion, pain), medications with side effects, all pertinent medical studies, restrictions and prognosis. Note: "Significant functional impairment" is defined on p. 1 of this enclosure.
136	Scar tissue that involves the loss of function causing significant functional impairment	Orthopedic or physical medicine consultation to include functional status (degree of impairment as measured by strength, range of motion, pain), medications with side effects and all pertinent medical studies.
LYMPHATICS		
137	History of Hodgkin's Disease Lymphoma within the last 5 years	Oncologist / hematologist consultation documenting staging, histology, past and present treatment(s) together with report of recent CT scans of the chest and abdomen.
138	History of Leukemia, Acute and Chronic - All Types within the last 5 years	Oncologist / hematologist consultation documenting staging, histology, past and present treatment(s).

MEDICAL CONDITIONS SUBJECT TO FURTHER REVIEW

No.	MEDICAL CONDITION	RECOMMENDED EVALUATION DATA
139	History of Chronic Lymphocytic Leukemia within the last 5 years	Oncologist / hematologist consultation documenting staging, histology, past and present treatment(s).
140	Adenopathy secondary to Systemic Disease or Metastasis within last 5 years	Oncologist / hematologist consultation documenting staging, histology, past and present treatment(s).
141	Lymphedema causing significant functional impairment	Orthopedic or surgery consultation to include functional status (degree of impairment as measured by strength, range of motion, pain), medications with side effects and all pertinent medical studies.
142	History of Lymphosarcoma within the last 5 years	Oncologist / orthopedic consultation documenting staging, histology, past and present treatment(s).
NEUROLOGIC		
143	History of Cerebral Thrombosis	Neurology consultation to include brain MRI, bilateral carotid ultra sound, and cerebral angiography.
144	History of Intracerebral or Subarachnoid Hemorrhage	Neurosurgical consultation and confirmation of successful obliteration of the vascular anomaly, neurologic and neuropsychologic evaluations, reports of MRI or CT scan to confirm absence of hydrocephalus.
145	History of Transient Ischemic Attack	Neurology consultation to include brain MRI, bilateral carotid ultra sound, echocardiogram to include bubble-contrast and cerebral angiography.
146	History of Intracranial Aneurysm	Neurosurgical consultation and confirmation of successful obliteration of the vascular anomaly, neurologic and neuropsychologic evaluations, reports of MRI or CT scan to confirm absence of hydrocephalus.
147	History of Arteriovenous Malformation	Neurosurgical consultation and confirmation of successful obliteration of the vascular anomaly, neurologic and neuropsychologic evaluations, reports of MRI or CT scan to confirm absence of hydrocephalus.
148	Intracranial Tumor within the last 5 years	Oncologist / hematologist consultation documenting staging, histology, past and present treatment(s) report of CT scans and post-operative reports and radiation treatment(s) if applicable. Pituitary tumors also require endocrinology consultation.

MEDICAL CONDITIONS SUBJECT TO FURTHER REVIEW

No.	MEDICAL CONDITION	RECOMMENDED EVALUATION DATA
149	History of Pseudotumor Cerebri	Submit all pertinent medical records, neurologic report, name and dosage of medication(s) and side effects. Note: An applicant with a history of benign supratentorial tumors may be considered favorably for a waiver after a minimum satisfactory convalescence of 1 year.
150	DELETED	INTENTIONALLY BLANK
151	Landry-Guillain-Barre Syndrome	Neurology consultation with complete neurological evaluation and appropriate laboratory and imaging studies as indicated including documentation of extremity functional status (degree of impairment as measured by strength, range of motion, pain).
152	Myasthenia Gravis	Neurology consultation with complete neurological evaluation and appropriate laboratory and imaging studies as indicated including documentation of extremity functional status (degree of impairment as measured by strength, range of motion, pain).
153	Multiple Sclerosis	Neurology consultation with complete neurological evaluation and appropriate laboratory and imaging studies, including recent MRI, as indicated including documentation of extremity functional status (degree of impairment as measured by strength, range of motion, pain). Functional testing as indicated in enclosure (2).
154	Dystonia Musculorum Deformans	Obtain medical records and neurology consultation, complete neurological evaluation with appropriate laboratory and imaging studies, as indicated including neuro-psychological testing. Functional testing as indicated in enclosure (2).
155	Huntington's Disease	Neurology consultation with complete neurological evaluation and appropriate laboratory and imaging studies, as indicated including neuro-psychological testing. Functional testing as indicated in enclosure (2).
156	Parkinson's Disease	Neurology consultation with complete neurological evaluation and appropriate laboratory and imaging studies, as indicated including neuro-psychological testing. Functional testing as indicated in enclosure (2).
157	Wilson's Disease	Neurology consultation with complete neurological evaluation and appropriate laboratory and imaging studies, as indicated including neuro-psychological testing. Functional testing as indicated in enclosure (2).

MEDICAL CONDITIONS SUBJECT TO FURTHER REVIEW

No.	MEDICAL CONDITION	RECOMMENDED EVALUATION DATA
158	Gilles de la Tourette Syndrome	Obtain medical records and neurology consultation, complete neurological evaluation with appropriate laboratory and imaging studies, as indicated including neuro-psychological testing. Functional testing as indicated in enclosure (2).
159	Alzheimer's Disease	Neurology consultation with complete neurological evaluation and appropriate laboratory and imaging studies, as indicated including neuro-psychological testing.
160	Dementia	Neurology consultation with complete neurological evaluation and appropriate laboratory and imaging studies, as indicated including neuro-psychological testing.
161	Slow viral diseases i.e., Creutzfeldt - Jakob's Disease	Neurology consultation with complete neurological evaluation and appropriate laboratory and imaging studies, as indicated including neuro-psychological testing.
162	History of recurrent headaches of any type that have associated symptoms which can cause sudden incapacitation such as visual disturbances, photophobia, difficulty concentrating, nausea/vomiting, ataxia, paresis, or vertigo	Neurology consultation with complete neurological evaluation and appropriate laboratory and imaging studies to include characteristics, frequency, severity, associated with neurologic phenomena, name and dosage of medication(s) and side effects.
163	Hydrocephalus, secondary to a known injury or disease process; or normal pressure	Neurology consultation with complete neurological evaluation and appropriate laboratory and imaging studies, as indicated including neuro-psychological testing.
164	History of Brain Abscess	Neurology consultation with complete neurological evaluation and appropriate laboratory and imaging studies, as indicated including neuro-psychological testing.
165	History of Encephalitis	Neurology consultation with complete neurological evaluation and appropriate laboratory and imaging studies, as indicated including neuro-psychological testing.
166	History of Bacterial Meningitis within the last 5 years	Neurology consultation with complete neurological evaluation and appropriate laboratory and imaging studies, as indicated including neuro-psychological testing.
167	Neurosyphilis	Neurology consultation with complete neurological evaluation and appropriate laboratory and imaging studies, as indicated including neuro-psychological testing.

MEDICAL CONDITIONS SUBJECT TO FURTHER REVIEW

No.	MEDICAL CONDITION	RECOMMENDED EVALUATION DATA
168	History of disturbance of consciousness without identifiable cause within the last 5 years	Neurology consultation with complete neurological evaluation and appropriate laboratory and CT, MRI, and EEG studies, as indicated.
169	History of Seizure Disorder, excluding Febrile Seizures prior to age 5	Submit all pertinent medical records, neurology consultation, to include characteristics, frequency, severity, associated with neurologic phenomena, name and dosage of medication(s) and side effects. Note: Contact NMC for guidance.
170	DELETED	INTENTIONALLY BLANK.
171	History of transient loss of nervous system function(s) without identifiable cause, e.g. transient global amnesia	Neurology consultation with complete neurological evaluation and appropriate laboratory and CT, MRI, and EEG studies, as indicated including neuro-psychological testing.
172	Trigeminal Neuralgia	Neurology consultation with complete neurological evaluation and appropriate laboratory and imaging studies to include characteristics, frequency, severity, associated with neurologic phenomena, name and dosage of medication(s) and side effects.
173	History of Head Trauma within the last 10 years associated with: Epidural or Subdural Hematoma; Focal Neurologic Deficit; Depressed Skull Fracture; or Unconsciousness or disorientation of more than one hour following injury	Neurology consultation with complete neurological evaluation and appropriate laboratory and imaging studies, as indicated including neuro-psychological testing. Submit all pertinent medical records, current status report, to include pre-hospital and emergency department records, operative reports, neurosurgical evaluation, name and dosage of medication(s) and side effects.
174	Meniere's Disease	Neurology consultation, to include characteristics, frequency, severity, associated with neurologic phenomena, name and dosage of medication(s) and side effects, otolaryngology and audiology consults.
175	Acute Peripheral Vestibulopathy	Neurology and otolaryngology consultations, to include characteristics, frequency, severity, associated with neurologic phenomena, name and dosage of medication(s) and side effects.

MEDICAL CONDITIONS SUBJECT TO FURTHER REVIEW

No.	MEDICAL CONDITION	RECOMMENDED EVALUATION DATA
176	Nonfunctioning Labyrinths	Neurology and otolaryngology consultations, to include characteristics, frequency, severity, associated with neurologic phenomena, name and dosage of medication(s) and side effects.
177	Vertigo or Disequilibrium	Neurology and otolaryngology consultations, to include characteristics, frequency, severity, associated with neurologic phenomena, name and dosage of medication(s) and side effects.
178	Orthostatic Hypotension causing Vertigo or Disequilibrium	Neurology and otolaryngology consultations, to include characteristics, frequency, severity, associated with neurologic phenomena, name and dosage of medication(s) and side effects.
179	Sleep Apnea, Central Sleep Apnea, Narcolepsy, Periodic Limb Movement, Restless Leg Syndrome or other sleep disorders	Submit all pertinent medical information and status report. Include sleep study with a polysomnogram, use of medications and titration study results. If surgically treated, should have post operative polysomnogram to document cure or need for further treatment.
PSYCHIATRIC		
180	Adjustment Disorders	Psychiatrist or clinical psychologist clinical status report documenting the diagnosis (DSM Axis I) and addressing any disturbances of thought, recurrent episodes, and psychotropic medication(s) to include documenting the period of use, name and dosage of any medication(s) and side-effects used for less than 6 months and discontinued for at least 3 months. Note: Waivers considered if medications used for less than 6 months and discontinued for at least 3 months.
181	Attention Deficit Disorder	Psychiatrist or clinical psychologist clinical status report documenting the diagnosis (DSM Axis I) and addressing any disturbances of thought, recurrent episodes, and psychotropic medication(s) to include documenting the period of use, name and dosage of any medication(s) and side-effects.
182	Bipolar Disorder	Psychiatrist or clinical psychologist clinical status report documenting the diagnosis (DSM Axis I) and addressing any disturbances of thought, recurrent episodes, and psychotropic medication(s) to include documenting the period of use, name and dosage of any medication(s) and side-effects.
183	Dysthymic or Bereavement Disorder	Psychiatrist or clinical psychologist clinical status report documenting the diagnosis (DSM Axis I) and addressing any disturbances of thought, recurrent episodes, and psychotropic medication(s) to include documenting the period of use, name and dosage of any medication(s) and side-effects.

MEDICAL CONDITIONS SUBJECT TO FURTHER REVIEW

No.	MEDICAL CONDITION	RECOMMENDED EVALUATION DATA
184	Clinical Depression	Psychiatrist or clinical psychologist clinical status report documenting the diagnosis (DSM Axis I) and addressing any disturbances of thought, recurrent episodes, and psychotropic medication(s) to include documenting the period of use, name and dosage of any medication(s) and side-effects.
185	Psychotic Disorder	Contact NMC for guidance.
186	History of substance or alcohol abuse, as defined in current DSM, within the last 5 years	For issuance of credentials, an evaluation report completed within the last year, including a determination that the individual is safe to work, from a DOT-qualified SAP, physician certified by American Society of Addiction Medicine, or any other addiction specialist accepted by the Coast Guard, and reports from the rehabilitation clinic/center (if any). Contact NMC if you have any questions regarding acceptable addiction specialists. For applicants with a history of substance abuse within the last 5 years, if they are renewal and/or raise in grade applicants who have been subject to the dangerous drug testing requirements in 46 CFR Part 16 for at least three years prior to the date of application, and if they have no verified non-negative test results (i.e. positive, adulterated, substituted, or refusal) for the entire time that they have held the credential being renewed and/or raised in grade, no evaluation data should be submitted. If a non-negative test result has been reported to the Coast Guard at any time that the applicant has held the credential being renewed and/or raised in grade, the applicant should submit the evaluation data specified for issuance of credentials.

MEDICAL CONDITIONS SUBJECT TO FURTHER REVIEW

No.	MEDICAL CONDITION	RECOMMENDED EVALUATION DATA
186a	History of substance or alcohol dependence as defined in current DSM	For issuance of credentials, an evaluation report completed within the last year, including a determination that the individual is safe to work, from a DOT-qualified SAP, physician certified by American Society of Addiction Medicine, or any other addiction specialist accepted by the Coast Guard, and reports from the rehabilitation clinic/center (if any). Should have at least 90 days of documented abstinence before applying for a credential. Contact NMC if you have any questions regarding acceptable addiction specialists. For applicants with a history of substance dependence, if they are renewal and/or raise in grade applicants who have been subject to the random dangerous drug testing requirements in 46 CFR Part 16 for at least five years prior to the date of application, and if they have no verified non-negative test results (i.e. positive, adulterated, substituted, or refusal) for the entire time that they have held the credential being renewed and/or raised in grade, no evaluation data should be submitted. If a non-negative test result has been reported to the Coast Guard at any time that the applicant has held the credential being renewed and/or raised in grade, the applicant should submit the evaluation data specified for issuance of credentials.
187	History of Suicide Attempt within the last 5 years	Psychiatrist or clinical psychologist clinical status report documenting the diagnosis (DSM Axis I) and addressing any disturbances of thought, recurrent episodes, and psychotropic medication(s) to include documenting the period of use, name and dosage of any medication(s) and side-effects.
188	Organic mental disorders that cause a cognitive defect	Psychiatric consultation with complete neurological evaluation and appropriate laboratory and imaging studies, as indicated including neuro-psychological testing.
BLOOD AND BLOOD-FORMING TISSUE DISEASE		
189	Anemia with hemoglobin < 10.0 grams per deciliter	Submit an internal medicine or hematology consultation with clinical history of the condition and medications, including diagnosis and course. Include a CBC with reticulocyte count, electrophoresis in cases of thalassemia and hemoglobinopathies. (In the case of sickle cell trait, the electrophoresis should document hemoglobin A > hemoglobin S) Hemoglobin A2 quantification in cases of beta-thalassemia trait, serum iron, TIBC, and serum ferritin in cases of thalassemia trait.

MEDICAL CONDITIONS SUBJECT TO FURTHER REVIEW

No.	MEDICAL CONDITION	RECOMMENDED EVALUATION DATA
190	Hemophilia	Submit an internal medicine or hematology consultation with clinical history of the condition, including diagnosis and course. Include a CBC with reticulocyte count.
191	Other disease of the blood or blood-forming tissues causing significant functional impairment	Submit an internal medicine or hematology consultation with clinical history of the condition, including diagnosis and course. Include a CBC with reticulocyte count, electrophoresis in cases of thalassemia and hemoglobinopathies. (In the case of sickle cell trait, the electrophoresis should document hemoglobin A > hemoglobin S) Hemoglobin A2 quantification in cases of beta-thalassemia trait, serum iron, TIBC, and serum ferritin in cases of thalassemia trait.
192	Polycythemia	Submit an internal medicine or hematology consultation with clinical history of the condition, including diagnosis and course.
ENDOCRINE DISORDERS		
193	Diabetes Mellitus requiring Insulin or history of DKA	Internal Medicine consultation documenting interval history, blood pressure and weight, evaluation of fasting plasma glucose; and, two current HgA1C's (<8.0) separated by at least 90 days, the most recent no more than 90 days old, ophthalmology consultation, graded exercise test.
194	Diabetes requiring Oral Medication	Internal Medicine consultation documenting interval history, blood pressure and weight, evaluation of fasting plasma glucose; and, two current HgA1C's (<8.0) separated by at least 90 days, the most recent no more than 90 days old, ophthalmology consultation.
195	Addison's Disease	Endocrinology consultation with status to include names and dosage of medication(s) and side effects.
196	Cushing's Disease or Syndrome	Endocrinology consultation with status to include names and dosage of medication(s) and side effects.
197	Hypoglycemia, whether functional or a result of pancreatic tumor	Internal Medicine consultation documenting interval history and GTT to document response to glucose load (Blood glucose and symptoms).
198	Hyperthyroidism	Endocrinology or internal medicine consultation, ophthalmology consultation, and recent (within the previous 90 days) thyroid panel to include as a minimum TSH and Free T4.

MEDICAL CONDITIONS SUBJECT TO FURTHER REVIEW

	MEDICAL CONDITION	RECOMMENDED EVALUATION DATA
HUMAN IMMUNODEFICIENCY VIRUS (HIV)		
199	Acquired Immunodeficiency Syndrome (AIDS)	Infectious disease consult documenting viral load determination by polymerase chain reaction (PCR), CD4 lymphocyte count, CBC, cognitive function test battery, and LFTs.
200	Human Immunodeficiency Virus (HIV)	Infectious disease consult documenting viral load determination by polymerase chain reaction (PCR), CD4 lymphocyte count, CBC, cognitive function test battery, and LFTs.
ALLERGIES		
201	Angioneurotic Edema or Anaphylaxis	Allergy consult documenting of all allergy history and symptoms along with history of desensitization and immunotherapy treatments. Medical records of previous treatments are also required. Note: Mariners issued waivers for this condition must have injectable epinephrine and diphenhydramine conveniently available.

INDEX FOR MEDICAL CONDITIONS SUBJECT TO FURTHER REVIEW

Medical Condition in Encl. (3)	Section	Condition # in Encl. (3)
2nd degree AV block mobitz I	Heart	58
2nd degree AV block mobitz II	Heart	59
3rd degree AV block	Heart	60
Abdominal aneurysm	Vascular System	82
Ablation, radio frequency	Heart	62
Abscess, brain	Neurologic	164
Abscess, pulmonary	Lungs & Chest	37
Absence of conjugate alignment	Eyes, General	32
Acoustic neuroma	Ears	8
Acquired immunodeficiency syndrome (AIDS)	Human Immuno-Deficiency Virus (HIV)	199
Acute fibrinous pleurisy	Lungs & Chest	44
Acute hepatitis a, b, or e	Abdomen, Viscera, & Anus	89
Acute hepatitis c	Abdomen, Viscera, & Anus	91
Acute nephritis	Genital-Urinary System	103
Acute or chronic disease of ears that may disturb equilibrium	Ears	5
Acute peripheral vestibulopathy	Neurologic	175
Acute polymyositis	Musculo-Skeletal	126
Addison's disease	Endocrine Disorders	195
Adenopathy secondary to systemic disease or metastasis within the last 5 years	Lymphatics	140
Adjustment disorders	Psychiatric	180
Alzheimer's disease	Neurologic	159
Amnesia	Neurologic	171
Amputations	Musculo-Skeletal	116
Anemia	Blood and Blood-forming Tissue Disease	189
Aneurysm, abdominal or thoracic	Vascular System	82
Aneurysm, intracranial	Neurologic	146
Angina pectoris	Heart	68
Angioneurotic edema, or anaphylaxis	Allergies	201
Ankylosis	Musculo-Skeletal	130
Anti-tachycardia devices or implantable defibrillators	Heart	81
Aortic and/or mitral insufficiency	Heart	73
Arteriosclerotic vascular disease (ASVD), symptomatic	Vascular System	84
Arteriovenous malformation	Neurologic	147

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Medical Condition in Encl. (3)	Section	Condition # in Encl. (3)
Arthritis, osteo	Musculo-Skeletal	124
Arthritis	Musculo-Skeletal	125
Asthma	Lungs & Chest	35
Atherectomy	Heart	70
Atrial fibrillation, chronic	Heart	66
Atrial Fibrillation, Paroxysmal or Lone	Heart	67
Atrophy, progressive, of any muscles	Musculo-Skeletal	117
Attention deficit disorder	Psychiatric	181
Attention deficit hyperactive disorder	Psychiatric	181
Arteriosclerotic vascular disease (ASVD)	Vascular System	84
Back pain, recurrent and symptomatic	Musculo-Skeletal	135
Bacterial meningitis	Neurologic	166
Bereavement disorder	Psychiatric	183
Bipolar disorder	Psychiatric	182
Bladder cancer	Genital-Urinary System	107
Blood or blood-forming tissue diseases	Blood and Blood-forming Tissue Disease	191
Bradycardia	Heart	52
Brain abscess	Neurologic	165
Breast tumors, malignant	Lungs & Chest	48a
Bronchiectasis	Lungs & Chest	51
Bronchitis, chronic	Lungs & Chest	36
Buerger's disease	Vascular System	85
CABG (Coronary Artery Bypass Graft)	Heart	70
Calculus, renal	Genital-Urinary System	113
Calculus, ureteral or vesical	Genital-Urinary System	114
Cancer, bladder	Genital-Urinary System	107
Cancer, colon/colorectal	Abdomen, Viscera, & Anus	94
Cancer, gastrointestinal	Abdomen, Viscera, & Anus	95
Cancer, prostate	Genital-Urinary System	108
Cancer, skin	Skin Diseases	99
Cardiac decompensation or cardiomyopathy	Heart	77
Cardiomyopathy	Heart	77
Central sleep apnea	Neurologic	179
Cerebral palsy	Musculo-Skeletal	132
Cerebral thrombosis	Neurologic	143
Chorioretinitis	Eyes, General	17

INDEX FOR MEDICAL CONDITIONS SUBJECT TO FURTHER REVIEW

Medical Condition in Encl. (3)	Section	Condition # in Encl. (3)
Chronic atrial fibrillation	Heart	66
Chronic bronchitis	Lungs & Chest	36
Chronic hepatitis b	Abdomen, Viscera, & Anus	90
Chronic hepatitis c	Abdomen, Viscera, & Anus	92
Chronic lymphocytic leukemia	Lymphatics	139
Chronic nephritis	Genital-Urinary System	104
Chronic renal insufficiency or chronic renal failure	Genital-Urinary System	102a
Cirrhosis, alcoholic	Abdomen, Viscera, & Anus	87
Cirrhosis, non-alcoholic	Abdomen, Viscera, & Anus	88
Clinical depression	Psychiatric	184
Collagen vascular diseases	Skin Diseases	97
Coloboma	Eyes, General	17
Colon/colorectal cancer	Abdomen, Viscera, & Anus	94
Congenital heart disease	Heart	78
Congestive heart failure (CHF), hypertrophy or dilatation of the heart	Heart	79
Conjugate alignment, absence of	Eyes, General	32
Convergence, eye	Eyes, General	33
Chronic obstructive pulmonary disease	Lungs & Chest	36
Corneal dystrophy	Eyes, General	18
Corneal ulcer or dystrophy	Eyes, General	18
Creutzfeldt-Jakob's disease, and other slow viral diseases	Neurologic	161
Cushings' Disease or Syndrome	Endocrine Disorders	196
Cysts or tumors of the lung, pleura, or mediastinum	Lungs & Chest	48
Decreased range of motion of a major joint	Musculo-Skeletal	119
Deformities of the face or head	Head, Face, Neck, & Scalp	2
Deformities, either congenital or acquired,	Musculo-Skeletal	118
Dementia	Neurologic	160
Depression	Psychiatric	184
Dermatomyositis	Musculo-Skeletal	127
Diabetes mellitus (DM) requiring Insulin, or history of diabetic ketoacidosis (DKA)	Endocrine Disorders	193
Diabetes mellitus requiring oral medication	Endocrine Disorders	194
Diplopia	Eyes, General	14
Disequilibrium or vertigo	Neurologic	177
Disparity in size or reaction to light (afferent pupillary defect)	Eyes, General	29

INDEX FOR MEDICAL CONDITIONS SUBJECT TO FURTHER REVIEW

Medical Condition in Encl. (3)	Section	Condition # in Encl. (3)
Disturbance of consciousness	Neurologic	168
Disturbances of musculoskeletal function	Musculo-Skeletal	133
Dizziness or disequilibrium	Ears	10
Drug dependence/abuse	Psychiatric	186
Dysthymic or bereavement disorder	Psychiatric	183
Dystonia musculorum deformans	Neurologic	154
Emphysema	Lungs & Chest	36
Empyema	Lungs & Chest	45
Encephalitis	Neurologic	165
Encephalomyelitis	Neurologic	150
Endocarditis	Heart	80
Episodic disorders of dizziness or disequilibrium	Ears	10
Equilibrium disturbance	Ears	5
Eye, any other acute or chronic pathological condition of either eye or adnexa	Eyes, General	13
Fibrosis, pulmonary	Lungs & Chest	42
Fistula of neck	Head, Face, Neck, & Scalp	1
Fistula, bronchopleural	Lungs & Chest	40
Fistula, mastoid	Ears	6
Gastrointestinal bleeding	Abdomen, Viscera, & Anus	96
Gender reassignment	Genital-Urinary System	115
Genitourinary tract cancer	Genital-Urinary System	107
Gilles de la tourette syndrome	Neurologic	158
Glaucoma	Eyes, General	23
Head trauma	Neurologic	173
Headaches	Neurologic	162
Heart block, 2nd degree AV block mobitz I	Heart	58
Heart block, 2nd degree AV block mobitz II	Heart	59
Heart block, 3rd begree AV block	Heart	60
Heart block, left bundle branch	Heart	53
Heart block, right bundle branch, acquired	Heart	54
Heart transplant	Heart	76
Hemophilia	Blood and Blood-forming Tissue Disease	190
Hemorrhage, intracerebral	Neurologic	144
Hemorrhage, subarachnoid,	Neurologic	144

INDEX FOR MEDICAL CONDITIONS SUBJECT TO FURTHER REVIEW

Medical Condition in Encl. (3)	Section	Condition # in Encl. (3)
Hepatitis B, chronic,	Abdomen, Viscera, & Anus	90
Hepatitis C, acute	Abdomen, Viscera, & Anus	91
Hepatitis C, chronic	Abdomen, Viscera, & Anus	92
Herniation of intervertebral disc	Musculo-Skeletal	134
Hodgkin's disease lymphoma	Lymphatics	137
Human immunodeficiency virus (HIV)	Human Immuno-Deficiency Virus (HIV)	200
Huntington's disease	Neurologic	155
Hydrocephalus	Neurologic	163
Hydronephrosis	Genital-Urinary System	112
Hypertension	Heart	71
Hyperthyroidism	Endocrine Disorders	198
Hypoglycemia	Endocrine Disorders	197
Impaired hearing	Ears	9
Implantable defibrillators	Heart	81
Implanted pacemaker	Heart	55
Inability to converge eyes on a near object	Eyes, General	33
Intervertebral disc surgery	Musculo-Skeletal	131
Intracerebral or subarachnoid hemorrhage	Neurologic	144
Intracranial aneurysm	Neurologic	146
Intracranial tumor within the last 5 years	Neurologic	148
Labyrinths, nonfunctioning	Neurologic	176
Landry-guillain-barre syndrome	Neurologic	151
Left bundle branch block	Heart	53
Leukemia, acute or chronic	Lymphatics	138
Limitation of motion of a major joint	Musculo-Skeletal	119
Liver transplant	Abdomen, Viscera, & Anus	93
Lobectomy	Lungs & Chest	41
Lupus erythematosus	Musculo-Skeletal	128
Lymphedema	Lymphatics	141
Lymphosarcoma	Lymphatics	142
Macular degeneration	Eyes, General	24
Macular detachment	Eyes, General	25
Stuttering	Mouth & Throat	4
Mastoid fistula	Ears	6

INDEX FOR MEDICAL CONDITIONS SUBJECT TO FURTHER REVIEW

Medical Condition in Encl. (3)	Section	Condition # in Encl. (3)
Mastoiditis, acute or chronic	Ears	7
Meniere's disease	Neurologic	174
Mitral and/or aortic insufficiency	Heart	73
Mobitz I 2nd degree heart block	Heart	58
Mobitz II 2nd degree AV block	Heart	59
Monocular vision	Eyes, General	11
Multiple sclerosis	Neurologic	153
Muscular dystrophy	Musculo-Skeletal	132
Myasthenia gravis	Musculo-Skeletal	132
Myasthenia gravis, pulmonary	Neurologic	152
Mycotic disease	Lungs & Chest	38
Myocardial infaction	Heart	69
Myocarditis	Heart	80
Narcolepsy	Neurologic	179
Kidney neoplasm	Genital-Urinary System	107
Nephritis, acute	Genital-Urinary System	103
Nephritis, chronic	Genital-Urinary System	104
Nephrosis	Genital-Urinary System	105
Neuralgia	Musculo-Skeletal	120
Neuralgia, trigeminal	Neurologic	172
Neurofibromatosis	Skin Diseases	100
Neuroma, acoustic	Ears	8
Neuropathy	Musculo-Skeletal	120
Neurosyphilis	Neurologic	167
Nonfunctioning labyrinths	Neurologic	176
Nystagmus	Eyes, General	30
Obstructive sleep apnea	Lungs & Chest	43
Ophthalmic pathology	Eyes, General	12
Ophthalmic tumors	Eyes, General	26
Optic atrophy	Eyes, General	19
Optic neuritis	Eyes, General	19
Organic mental disorders	Psychiatric	188
Orthostatic hypotension	Neurologic	178
Osteoarthritis	Musculo-Skeletal	124
Osteomyelitis	Musculo-Skeletal	122
Otitis externa	Ears	9
Pacemaker	Heart	55

INDEX FOR MEDICAL CONDITIONS SUBJECT TO FURTHER REVIEW

Medical Condition in Encl. (3)	Section	Condition # in Encl. (3)
Pancreatic tumor	Endocrine Disorders	197
Papilledema	Eyes, General	22
Opthalmic paralysis	Eyes, General	34
Parkinson's disease	Neurologic	156
Paroxysmal/lone atrial fibrillation	Heart	67
Periarteritis nodosa	Musculo-Skeletal	129
Pericarditis	Heart	80
Periodic limb movement	Neurologic	179
Peripheral vestibulopathy	Neurologic	175
Pleurisy, acute fibrinous	Lungs & Chest	44
Pleurisy, with effusion	Lungs & Chest	46
Pneumonectomy	Lungs & Chest	47
Pneumothorax	Lungs & Chest	50
Polycystic kidney disease	Genital-Urinary System	109
Polycythemia	Blood and Blood-forming Tissue Disease	192
Polymyositis	Musculo-Skeletal	126
Preexcitation syndrome	Heart	61
Premature atrial contractions	Heart	56
Premature ventrical muscle contractions	Heart	57
Progressive atrophy	Musculo-Skeletal	117
Prostate cancer	Genital-Urinary System	108
Pseudotumor cerebri	Neurologic	149
Psychotic disorder	Psychiatric	185
Percutaneous transluminal coronary arterioplasty	Heart	70
Pterygium	Eyes, General	15
Pulmonary fibrosis	Lungs & Chest	42
Pyelitis	Genital-Urinary System	110
Pyelonephritis	Genital-Urinary System	110
Pyelonephrosis	Genital-Urinary System	110
Refractive eye surgery	Eyes, General	16
Renal calculus	Genital-Urinary System	113
Renal replacement therapy/dialysis	Genital-Urinary System	101
Renal transplant	Genital-Urinary System	102
Restless leg syndrome	Neurologic	179
Retinal degeneration	Eyes, General	20
Retinal detachment	Eyes, General	20

INDEX FOR MEDICAL CONDITIONS SUBJECT TO FURTHER REVIEW

Medical Condition in Encl. (3)	Section	Condition # in Encl. (3)
Retinitis pigmentosa	Eyes, General	21
Retinopathy	Eyes, General	28
Rheumatoid arthritis	Musculo-Skeletal	125
Right bundle branch block	Heart	54
Rotoblation	Heart	70
Sarcoid	Lungs & Chest	49
Scar tissue	Musculo-Skeletal	136
Sciatica	Musculo-Skeletal	121
Seizure disorder	Neurologic	169
Skin diseases	Skin Diseases	98
Skin tumors	Skin Diseases	99
Sleep disorders	Lungs & Chest	43
Slow viral diseases	Neurologic	161
Stent, coronary	Heart	70
Stones, kidney	Genital-Urinary System	113
Stones, ureteral or vesical	Genital-Urinary System	114
Stuttering	Mouth & Throat	4
Substance dependence/abuse	Psychiatric	186
Suicide attempt	Psychiatric	187
Supraventricular tachycardia	Heart	63
Surgery, intervertebral disc	Musculo-Skeletal	131
Symptomatic bradycardia	Heart	52
Syncope	Heart	64
Synechiae, ophthalmic, anterior or posterior	Eyes, General	31
Thoracic aneurysm	Vascular System	82
Thrombophlebitis	Vascular System	86
Thrombosis, cerebral	Neurologic	143
Tracheotomy	Head, Face, Neck, & Scalp	1
Transient global amnesia	Neurologic	171
Transient ischemic attack	Neurologic	145
Transplant, liver	Abdomen, Viscera, & Anus	93
Tremors	Musculo-Skeletal	123
Trigeminal neuralgia	Neurologic	172
Tuberculosis	Lungs & Chest	39
Tumor of head, face or neck	Head, Face, Neck, & Scalp	3
Tumor, intracranial	Neurologic	148

INDEX FOR MEDICAL CONDITIONS SUBJECT TO FURTHER REVIEW

Medical Condition in Encl. (3)	Section	Condition # in Encl. (3)
Tumors or cysts of the lung, pleura, or mediastinum	Lungs & Chest	48
Tumors, breast	Lungs & Chest	48a
Tumors, ophthalmic	Eyes, General	26
Ureteral or vesical calculus	Genital-Urinary System	114
Uveitis	Eyes, General	22
Valve replacement	Heart	74
Valvular disease	Heart	72
Valvuloplasty	Heart	75
Vascular occlusion	Eyes, General	27
Vertigo or disequilibrium	Neurologic	177
Wilson's disease	Neurologic	157

ABBREVIATIONS

NVIC Abbreviation	Definition
2-D M-mode	Two-dimensional, motion-mode doppler echocardiography
AB	Able-bodied seaman
ACE	Angiotensin converting enzyme
AIDS	Acquired immunodeficiency syndrome
ANA	Anti-nuclear antibody
AO	American Optometry
ASAM	American Society of Addiction Medicine
AV	Atrioventricular
BP	Blood pressure
BPM	Beats per minute
BUN	Blood urea nitrogen
Ca	Calcium
CABG	Coronary artery bypass graft
CAD	Coronary artery disease
CBC	Complete blood count
CD4	Cluster of differentiation 4 (white blood cells)
CEA	Carcino embryonic antigen
CFR	Code of Federal Regulations
CHF	Congestive heart failure
CG	Coast Guard
cm	Centimeter
COX-2	Cyclooxygenase -2
CT	Computed tomography
CVA	Cerebrovascular accident
CXR	Chest X-ray
DKA	Diabetic ketoacidosis
DLCO	Diffusing capacity of the lung for carbon monoxide
DM	Diabetes mellitus
DNA	Deoxyribonucleic acid
DOT	Department of Transportation
DSM-4	Diagnostic & Statistical Manual,
ECG	Electrocardiogram
EEG	Electroencephalogram
EKG	Electrocardiogram
FEV1	Forced expiratory lung volume in one second
FH	Food handler

ABBREVIATIONS

NVIC Abbreviation	Definition
Free T4	Free thyroxine immunoassay
FVC	Forced vital capacity
GFR	Glomerulo filtration rate
GMDSS	Global Maritime Distress & Safety System
GRT	Gross register tons
GTT	Glucose tolerance test
GXT	Graded exercise test
HBeAg	Hepatitis B e antigen
HBsAb	Hepatitis B surface antibody
HDL	High density lipoprotein
Hg A1c	Glycosylated hemoglobin
HIV	Human Immunodeficiency Virus
HLA B 27	Histocompatibility lymphocyte antigen test
HR	Heart rate
HTN	Hypertension
IOP	Intraocular pressure
LDL	Low density lipoprotein
LFT	Liver function test
LTI	Latent tuberculosis infection
METS	Metabolic exercise test score
MMC	Merchant mariner’s credential
MMD	Merchant mariner's document
MRA	Magnetic resonance angiogram
MRI	Magnetic resonance imaging
NMC	National Maritime Center
NPC	Near point of conversion
NSAID	Non-steroidal anti-inflammatory drug
NVIC	Navigation & Vessel Inspection Circular
OCMI	Officer in Charge, Marine Inspection
OS	Ordinary seaman
OTC	Over-the-counter
PCR	Polymerase chain reaction
PFT	Pulmonary function test
PIC	Person-in-charge
PO4	Phosphorus
PPD	Purified protein derivative
PPE	Personal protective equipment

ABBREVIATIONS

NVIC Abbreviation	Definition
PSG	Polysomnography
PTCA	Percutaneous transluminal coronary arterioplasty
PVC	Premature ventricular contraction
QMED	Qualified member of engineering department
RAT	Read aloud test
REC	Regional Exam Center
RFPEW	Rating forming part of an engineering watch
RFPNW	Rating forming part of a navigational watch
RNA	Ribonucleic acid
SAP	Substance abuse provider
STCW	Standards of Training, Certification, and Watchkeeping
STFH	Steward's department food handler
TIBC	Total iron-binding capacity
TNM	T = untreated primary tumor. N = regional lymph node. M = distant metastases.
TSH	Thyroid stimulating hormone
UA	Urinalysis
VTA	Vision testing apparatus

MEDICATIONS

Definitions:

Alcohol. The intoxicating agent in beverage alcohol, ethyl alcohol or other low molecular weight alcohols, including methyl or isopropyl alcohol. *See* 33 CFR 95.010.

Controlled substance has the same meaning assigned by 21 U.S.C. 802 and includes all substances listed on Schedules I through V as they may be revised from time to time (21 CFR Part 1308). *See* 33 CFR 95.010.

Dangerous drug means a narcotic drug, a controlled substance, or a controlled-substance analog (as defined in section 102 of the Comprehensive Drug Abuse and Control Act of 1970 (21 U.S.C. 802)). *See* 46 CFR 16.105.

Drug means any substance (other than alcohol) that has known mind or function-altering effects on a person, specifically including any psychoactive substance, and including, but not limited to, controlled substances. *See* 33 CFR 95.010.

Intoxicant means any form of alcohol, drug or combination thereof. *See* 33 CFR 95.010.

Prohibitions:

Illegal Substances: Use of illegal or illegally obtained substances, including all illegal or illegally obtained dangerous drugs (as defined in 46 CFR 16.105), is incompatible with maritime service and is not waiverable under any circumstances.

Intoxicants: Operation of vessels while under the influence of drugs or alcohol is regulated under 33 CFR Part 95. Issuance of a credential does not authorize a mariner to operate a vessel in contravention of 33 CFR Part 95. *See also* 46 USC § 2302.

Prescription and Over-the-Counter Medications:

Credential applicants who are required to complete a general medical exam are required to report all prescription medications prescribed, filled or refilled and/or taken within 30 days prior to the date that the applicant signs the CG-719K or approved equivalent form. In addition, all prescription medications, and all non-prescription (over-the-counter) medications including dietary supplements and vitamins, that were used for a period of 30 or more days within the last 90 days prior to the date that the applicant signs the CG-719K or approved equivalent form, must also be reported.

Use of certain medications is considered disqualifying for issuance of credentials. The underlying cause or need for use of these medications and potential side effects may result in denial of a credential application or require a waiver. Applicants are encouraged to discuss with their health care providers suitable alternative medications to those drugs listed below.

MEDICATIONS

The following is a non-exhaustive list of prescription and over-the-counter medications that may be subject to further medical review in accordance with enclosure (6).

Anti-Depressants: Waiver is required, excluding use as a smoking cessation aid and with Premenstrual Dysphoric Disorder (PMDD).

Anti-Motion Sickness Agents: Use is approved when used in accordance with manufacturers' warnings and directions.

Anti-Psychotics: Waiver is required.

Anti-Convulsives: Waiver is required.

Anti-Histamines: Non-sedating medications, such as loratadine (Claritin), fexofenadine (Allegra) and desloratadine (Clarinex), are acceptable when used in accordance with manufacturers' warnings and directions. Sedating medications used during, or within 24 hours prior to, acting under the authority of the credential require a waiver.

Barbiturates, Mood Ameliorating, Tranquilizing, or Ataraxic Drugs: Waiver is required.

Benzodiazepines: Waiver is required if used during, or within 7 days prior to, acting under the authority of the credential.

Cough Preparations with Dextromethoraphan, Codeine, or other Codeine-Related Analogs: Use of over-the-counter medications is approved when used in accordance with manufacturers' warnings and directions. Prescription medications require waiver if used during, or within 24 hours prior to, acting under the authority of the credential.

Diet Aids (e.g. Dexatrim, Metabolife, etc.) and Stimulants (e.g. modafinil, amphetamines, etc.): Use of over-the-counter medications is approved when used in accordance with manufacturers' warnings and directions. Prescription medications require waiver if used during, or within 48 hours prior to, acting under the authority of the credential.

Hypnotics (sleeping aids) and Sedatives: Waiver is required if used during, or within 48 hours prior to, acting under the authority of the credential.

Legally Prescribed Controlled Substances (including legally prescribed narcotics and legally prescribed medications which contain narcotics such as Tylenol w/ codeine): No waiver required if not used during, or within 48 hours prior to, acting under the authority of the credential. May be waiverable under exceptional circumstances if used during, or within 48 hours prior to, acting under the authority of the credential.

MEDICATIONS

Medical Use of Hallucinogens (e.g. medical marijuana, peyote or ecstasy): Even if legalized by a state, is **not** waiverable under any circumstances.

Muscle Relaxants: Centrally acting (e.g.carisoprodol, meprobamate, cyclobenzaprine, methocarbamol, orphenadrine citrate, benzodiazepines, antimuscarinics and antihistamines, phenyltoloxamine, etc.): Waiver is required if used during, or within 48 hours prior to, acting under the authority of the credential.

VISION AND HEARING STANDARDS

1. VISION REQUIREMENTS FOR LICENSED OR CERTIFICATED DECK PERSONNEL

a. Applicants for any deck officer license or qualified deck rating should demonstrate that they have correctable vision to at least 20/40 in each eye and uncorrected vision of at least 20/200 in each eye.[1] Applicants for STCW endorsements should meet the same standards. In all cases, the horizontal field of vision should be not less than 100 degrees in each eye. Waivers are not normally granted to an applicant whose corrected vision in the better eye is not at least 20/40. Additional waiver information is contained in paragraph 4 below. *See* 46 CFR 10.205(d)(2) & (d)(4).

b. These applicants must demonstrate that they have a normal color sense when tested by the 14 plate (which replaces the obsolete 16 plate), 24 plate, or 38 plate Ishihara pseudoisochromatic plates tests, Farnsworth Lantern, or an alternative test approved by the NMC. The use of color sensing lenses to assist these applicants with passing the color vision test is prohibited by 46 CFR 10.205(d)(2). Any questions about acceptable color sense testing methodologies should be directed to the NMC. S*ee* 46 CFR 10.205(d)(2).

2. VISION REQUIREMENTS FOR LICENSED OR CERTIFICATED ENGINEERING PERSONNEL, TANKERMAN, OFFSHORE INSTALLATION MANAGER, BARGE SUPERVISOR, BALLAST CONTROL OFFICER AND RADIO OFFICER

a. Applicants for any engineering officer license, qualified engineering rating, offshore installation manager, barge supervisor, ballast control officer, radio officer, or tankerman endorsement should demonstrate that they have correctable vision of at least 20/50 in each eye and uncorrected vision of at least 20/200 in each eye.[2] Applicants for STCW endorsements as RFPEW, or for any STCW engineering officer endorsement, should meet the same standards. The horizontal field of vision should be not less than 100 degrees in each eye. Waivers are not normally granted to an applicant whose corrected vision in the better eye is not at least 20/50. Additional waiver information is contained in paragraph 4 below. *See* 46 CFR 10.205(d)(3) & (d)(4).

b. These applicants are only required to demonstrate that they can distinguish between the colors red, blue, green, and yellow. They may do so by passing the 14 plate (which replaces the obsolete 16 plate), 24 plate, or 38 plate Ishihara pseudoisochromatic plates

[1] The Coast Guard has proposed changing its current vision standards currently in 46 CFR 10.205(b). The proposed change would require that applicants meet the current vision acuity standard (20/40 corrected vision, 20/200 uncorrected vision) in one eye only rather than both eyes. *See* 72 FR 3605, 3656 (Jan. 2007) Proposed 46 CFR 10.215(b)(1) would require: "An applicant must have correctable vision to at least 20/40 in one eye and uncorrected vision of at least 20/200 in the same eye." If proposed 46 CFR 10.215(b)(1) becomes a final, effective rule, these vision standards would become the vision standards for this document at that time.

[2] The Coast Guard has proposed changing its vision standards currently in 46 CFR 10.205(b). The proposed change would require that applicants meet the current vision acuity standard (20/50 corrected vision, 20/200 uncorrected vision) in one eye only rather than both eyes. *See* 72 FR 3605, 3656 (Jan. 2007). Proposed 46 CFR 10.215(b)(2) would require: "An applicant must have correctable vision to at least 20/50 in one eye and uncorrected vision of at least 20/200 in the same eye . . . ." If proposed 46 CFR 10.215(b)(2) becomes a final, effective rule, these vision standards would become the vision standards for this document at that time.

VISION AND HEARING STANDARDS

tests, Farnsworth Lantern, or an alternative test approved by the NMC. Any questions about acceptable color-sense testing methodologies should be directed to the NMC. *See* 46 CFR 10.205(d)(3).

3. GREAT LAKES PILOTS VISION STANDARDS

The vision standards for an applicant for original registration and for registered pilots are contained in 46 CFR 402.210(c). An applicant for original registration must have a visual acuity either with or without glasses of at least 20/20 vision in one eye and at least 20/40 in the other. An applicant who wears glasses or contact lenses must also pass a test without glasses or lens of at least 20/40 in one eye and at least 20/70 in the other.

Registered pilots, however, must have either with or without glasses or lens visual acuity of at least 20/30 in one eye and at least 20/50 in the other. A Registered Pilot who wears glasses or lens must also pass a test without glasses or lens of at least 20/50 in one eye and at least 20/100 in the other. The color sense of original applicants and Registered Pilots shall be tested by a pseudoisochromatic plate test. Passage of the Williams lantern test or its equivalent is an acceptable substitute for a pseudoisochromatic plate test. *See* 46 CFR 402.210(c).

4. WAIVERS OF VISION REQUIREMENTS

a. Applicants for any credential (original, renewal, or raise in grade) with compensated monocular vision may be granted a waiver by the NMC provided the vision in the applicant's remaining eye is correctable to the applicable standards in either section 1 or 2 above. An applicant for an original credential should also provide evidence of the ability to compensate for the lack of stereo vision through a report from an ophthalmologist and attestations of the applicant's ability from employers or co-workers. Generally, waivers for monocular vision are not granted until the applicant has been subject to monocular vision for at least 180 days.

b. Applicants with uncorrected vision of up to 20/800 may be granted a waiver by the Coast Guard provided that the corrected vision meets the applicable standards set forth in paragraph 1 or 2 above. The waiver endorsement should include a requirement that the applicant carry spare corrective lenses and wear the corrective lenses when acting under the authority of the credential.

c. Applicants for Able Seaman (AB) endorsement who cannot demonstrate normal color vision by passing the 14 plate, 24 plate, or 38 plate Ishihara pseudoisochromatic plates tests, Farnsworth Lantern, or an alternative test approved by the NMC, but who are otherwise qualified for AB in all respects, may be issued an MMD endorsed as boatswain. The term "boatswain" is defined in 46 CFR 10.103. It is a non-watchstanding, non-navigating position.

VISION AND HEARING STANDARDS

d. Applicants for deck officer licenses who cannot pass the color vision tests may be considered for a waiver by the NMC for issuance of a license limited to daylight hours only.

e. Waivers are not normally granted for conditions that accelerate the normal decline in vision from aging.

5. HEARING STANDARDS

a. Applicants for any credential (original, renewal or raise in grade) should have adequate hearing.

b. If the examining medical practitioner has concerns regarding the applicant's ability to adequately hear, the examining medical practitioner should refer the applicant to an audiologist or other hearing specialist to conduct an audiometer test and/or a speech discrimination test. Applicants should advise medical practitioners of any auditory concerns that they are aware of at the time of the medical examination, and they may submit the results of hearing tests conducted prior to the medical examination as long as the test results will be no more than 12 months old on the date of credential application. The documented results of the test(s) should be provided to the examining medical practitioner for review and attached to the completed credential application.

c. The audiometer test should include testing at the following thresholds: 500 Hz; 1,000 Hz; 2,000 Hz; and 3,000 Hz. The frequency responses for each ear are averaged to determine the measure of an applicant's hearing ability. Applicants should demonstrate an unaided threshold of 30 decibels or less in their best ear. If the applicant only has hearing in one ear, the unaided threshold should be 30 decibels or less in that ear.

d. The functional speech discrimination test is carried out at a level of 55 decibels. For issuance of an original license, qualification, or certificate the applicant should demonstrate functional speech discrimination of at least 90%. For renewal or raise in grade of any credential, the applicant should demonstrate functional speech discrimination of at least 80%. An applicant who is unable to meet the standards of the audiometer test, but who can pass the functional speech discrimination test, may be eligible for a waiver.

e. A hearing aid may be used by applicants for an original, renewal, or upgrade of any credential. When a hearing aid is used, the aided threshold should be at least 20 decibels in each ear and functional speech discrimination should be at least 90% at 55 decibels. An applicant who requires the use of a hearing aid to meet the hearing standards should have a notation of that fact on his or her credential(s) along with a requirement that spare batteries are to be available, and that the applicant must use the hearing aid in an operational mode while acting under the authority of the credential.

MEDICAL REVIEW PROCESS

1. The medical review process applies to mariners who do not meet the physical or medical standards for a credential as contained in references (a) through (d) and/or who have a medical condition specified in this NVIC.

2. The Coast Guard issues (or denies) credentials under the authority of the Officer in Charge, Marine Inspection (OCMI). In the case of physical or medical standards, a waiver may be granted, as discussed in 46 CFR 10.205(d)(4), if extenuating circumstances warrant special consideration.

3. If an individual submits his/her application for a credential(s) to the Coast Guard, the physical examination report will be thoroughly reviewed for the medical conditions listed in enclosure (3) early in the evaluation process. The Coast Guard should advise the applicant immediately if there are any discrepancies or if any additional information is needed. This will give the applicant time to schedule necessary appointments, receive test results, or meet other requirements to prevent unnecessary delays. *See* 46 CFR 10.205(d)(4).

4. A waiver may be granted for the vision requirements in enclosure (5) of this NVIC.

5. The NMC will review all medical or physical conditions subject to further review. The following information should be forwarded to the NMC:

   a. A statement of the medical or physical condition(s) requiring review by the NMC;

   b. A copy of all information from the physician addressing the mariner's diagnosis, prognosis, evaluations, tests, medications (dosage, side effects), limitations, and restrictions as discussed in the guidelines in enclosure (3);

   c. A copy of the applicant's completed form CG-719K, CG-719K/E, or the equivalent;

   d. A copy of the mariner's credential application, including a detailed description of the credential for which the applicant is applying;

   e. A copy of any previous medical waivers granted to the applicant by the Coast Guard; and,

   f. Any additional information that may be useful in evaluating the physical or medical condition(s) of the applicant. In this regard, recommendations from agencies of the federal government operating government vessels, as well as owners and operators of private vessels, made on behalf of their employees, will be given full consideration.

   g. In all cases, the information should include a narrative from the cognizant medical practitioner describing the condition(s), prognosis, any restrictions, medications prescribed for the condition(s), and any side effects from the medications that the applicant may experience. Conditions that physically restrict a mariner from being able to perform his or her duties should include a report of a practical demonstration of the applicant's physical abilities and limitations as discussed in enclosure (2) of this NVIC.

MEDICAL REVIEW PROCESS

6. Incomplete information will result in delay. The NMC medical reviewers will examine all physical and medical condition(s) noted on form CG-719K and/or CG-719K/E, as additional conditions may be related to the specific condition(s) in question.

7. The NMC will review all information provided, and will determine one of the following:

   a. The applicant is physically and medically qualified for the credential without any limitations, waivers and/or other conditions for issuance of the credential.

   b. The applicant is physically and medically qualified for the credential with limitations and/or other conditions for issuance of the credential as specified by the NMC..

   c. The applicant does not possess the vision, hearing, or general physical condition necessary, but a credential may be issued with appropriate limitations, waivers and/or other conditions for issuance of the credential as specified by the NMC.

   d. Additional information is necessary to determine if the applicant is physically and/or medically qualified for the credential. The NMC will request additional information from the applicant. The NMC may hold the package pending receipt of that information before the package and/or application is returned unprocessed.

   e. The applicant is not physically and/or medically qualified for the credential. The application for a credential will be denied by the OCMI.

8. The Coast Guard will inform the applicant of the results of its review. If issuance of a credential is denied due to a determination that the applicant is not physically and/or medically qualified, the applicant shall be informed in writing of the cause and advised of the right to reconsider and appeal the decision in accordance with 46 CFR Subpart 1.03.

   a. Under 46 CFR Subpart 1.03, the applicant may seek reconsideration of the denial of a credential within 30 days of the date of the denial. The applicant may subsequently appeal the reconsideration decision within 30 days of the date of the reconsideration decision. The 30-day time limit to file an appeal may be extended upon a showing of good cause. The initial decision to deny the application remains in effect while the reconsideration and appeal are ongoing, unless the action is stayed by the Coast Guard. Detailed instructions regarding the reconsideration and appeal process are provided to all applicants who are denied a credential.

9. If a medical waiver is granted, certain conditions may be placed on the mariner in order to maintain the waiver. These conditions may include, at a minimum, that any deterioration of a waivered medical condition be immediately reported to the Coast Guard. Where the waivered medical condition is progressive, the waiver may require the mariner to submit medical exams and/or tests at varying intervals to track the ongoing status of the waivered medical condition. *See* 46 CFR 10.205(d)(4). Applicants have the right to appeal any conditions placed on a waiver in accordance with 46 CFR Subpart 1.03 (*see paragraph 8.a. above*).

MEDICAL REVIEW PROCESS

a. The credential(s) should not be issued unless the mariner signs a document acknowledging, and agreeing to, all conditions placed on the waiver.

b. Deterioration of a waivered medical condition and/or failure to comply with any conditions placed on the waiver may render the waiver invalid. Appropriate administrative action, up to an including suspension or revocation of the mariner's credential(s) in accordance with 46 CFR Part 5, may result.

10. On a case-by-case basis, the NMC will consider individual proposals from applicants (along with their employers, as appropriate) for credentials to be issued with appropriate limitations, waivers and/or other conditions in order to address concerns associated with medical conditions subject to further review (enclosure (3)) or the inability to meet the physical ability guidelines (enclosure (2)). *See* 46 CFR 10.205(d)(4).

11. Trusted Agents. The Coast Guard may designate certain medical practitioners as trusted agents to perform physical examinations on mariners. Physical examinations conducted by trusted agents may help ensure completeness of the physical examination and reduce processing time.

    The criteria to become a trusted agent would be specified by the Coast Guard if/when the Coast Guard initiates this program.

    In all cases, the NMC medical staff is available to provide consultations and educational outreach to medical practitioners and maritime industry medical representatives on the conduct of mariner medical examinations and proper documentation to facilitate NMC evaluations. Maritime industry and professional medical organizations are encouraged to utilize NMC staff for educating health care providers and others involved in mariner medical examinations.