- (e) Content and Manner of ISM Code Notice. (1) ISM Code notice includes the following:
- (i) the date of issuance for the company's Document of Compliance certificate that covers the vessel,
- (ii) the date of issuance for the vessel's Safety Management Certificate, and.
- (iii) the name of the Flag Administration, or the recognized organization(s) representing the vessel flag administration, that issued those
- (2) If you meet the criteria in paragraph (d) of this section, you must give the ISM Code notice to the Coast Guard Captain of the Port of the port or place of your destination in the U.S. at least 24 hours before you enter the port or place of destination. The ISM Code notice may be combined and provided with the report required by paragraph (a) of this section.

Dated: December 5, 1997.

#### R.C. North,

Rear Admiral, U.S. Coast Guard, Assistant Commandant for Marine Safety and Environmental Protection.

[FR Doc. 97-32447 Filed 12-10-97; 8:45 am] BILLING CODE 4910-14-P

## **DEPARTMENT OF VETERANS AFFAIRS**

38 CFR Part 4

RIN 2900-AE40

# Schedule for Rating Disabilities; The Cardiovascular System

**AGENCY:** Department of Veterans Affairs. **ACTION:** Final rule.

**SUMMARY:** This document amends that portion of the Department of Veterans Affairs (VA) Schedule for Rating Disabilities addressing the cardiovascular system. The effect of this action is to update the cardiovascular system portion of the rating schedule to ensure that it uses current medical terminology and unambiguous criteria, and that it reflects medical advances that have occurred since the last review. **EFFECTIVE DATE:** This amendment is effective January 12, 1998.

FOR FURTHER INFORMATION CONTACT: Caroll McBrine, M.D., Consultant, Regulations Staff (213A), Compensation and Pension Service, Veterans Benefits Administration, Department of Veterans Affairs, 810 Vermont Avenue NW, Washington, DC 20420, (202) 273-7230. SUPPLEMENTARY INFORMATION: As part of a comprehensive review of the rating schedule, VA published, in the Federal

Register of January 19, 1993 (58 FR 4954–60), a proposal to amend 38 CFR 4.100, 4.101, 4.102, and 4.104. Interested persons were invited to submit written comments, suggestions, or objections on or before March 22, 1993. We received comments from the Disabled American Veterans, the Veterans of Foreign Wars, the Paralyzed Veterans of America, the American Legion, and several VA employees.

One commenter, stating that the primary objective of the review is to update the medical terminology and criteria used to evaluate disabilities rather than to amend the percentage evaluations, contended, without being specific, that a substantial number of the proposed changes go beyond the stated purpose and expressed general opposition to any changes that are inconsistent with the stated objective. The commenter also stated that the proposed criteria retain, and in some cases expand upon, the vague, indefinite, and arbitrary elements previously found in the schedule and felt that substantial revision of the proposed rules is required.

The purpose of the review was to update the cardiovascular system portion of the rating schedule to ensure that it uses current medical terminology and unambiguous criteria, and that it reflects medical advances that have occurred since the last review. The proposed revisions published January 19, 1993, were intended to update the medical terminology; revise the criteria, including the length of convalescence evaluations, based on medical advances; and make criteria more objective, i.e., less ambiguous and, thereby, assure more consistent ratings. These proposed changes were consistent with the stated purposes of the revision. However, since establishing less ambiguous criteria to assure consistent evaluations is one of the purposes of this revision, and a number of commenters stated that the proposed criteria contained language that is too subjective to provide effective guidance in evaluating cardiovascular disabilities, we have further revised the proposed evaluation criteria to eliminate indefinite terminology and establish more objective and quantifiable criteria wherever possible. These changes will be discussed in detail under the individual codes

One commenter suggested that the proposed criteria will discriminate against veterans of Desert Storm and future veterans because their conditions will be evaluated under criteria that he perceived as less generous than those in the prior rating schedule.

Significant medical advances, including new surgical and anesthetic techniques, new medications, and earlier diagnoses, have occurred, which we must take into account in revising the rating schedule. Doing so is, in fact, one of the primary reasons for conducting this review. Since recently discharged veterans clearly benefit from the application of these new techniques, in our judgment they are not discriminated against by having their disabilities evaluated under criteria which reflect the effects of these same medical advances.

One commenter objected that the rating schedule fails to take into consideration the disabling effects of the veteran's shortened life expectancy.

To consider a factor so far removed from "the average impairments of earning capacity" as the effect of various conditions on life expectancy would clearly exceed the parameters established by Congress in 38 U.S.C.

One commenter, citing a statistical economic validation study from the 1960s, implied that statistical studies may justify increased disability evaluations.

The statute (38 U.S.C. 1155) authorizing establishment of the rating schedule directs that "[t]he Secretary shall from time to time readjust the schedule of ratings in accordance with experience" (emphasis supplied). Rather than requiring statistical studies or any other specific type of data, the statute clearly leaves the nature of the experience which warrants an adjustment, and by extension the manner in which any review is conducted, to the discretion of the Secretary. Although during the 1970s VA considered adjusting the rating schedule based on the same statistical studies cited by the commenter, that approach proved to be unsatisfactory, and the proposed changes based on that study were not adopted.

One commenter agreed that ambiguous words such as "severe" should be deleted, but cautioned against making the evaluation criteria too objective.

Providing clear and objective criteria is the best way to assure that disabilities will be evaluated fairly and consistently. Judgment and flexibility cannot be eliminated from the evaluation process, however, because patients do not commonly present as textbook models of disease, and rating agencies have the task of assessing which evaluation level best represents the overall disability picture. (See § 4.7.)

The previous schedule provided convalescence evaluations for six

months for the following conditions: rheumatic heart disease (DC 7000); arteriosclerotic heart disease, following coronary occlusion (DC 7005) myocardial infarction (DC 7006); and soft tissue sarcoma (of vascular origin) (DC 7123). It provided convalescence evaluations for one year for the following conditions: Auriculoventricular block, with

implantation of a pacemaker (DC 7015); heart valve replacement (DC 7016); coronary artery bypass (DC 7017); and aortic aneurysm, following surgical correction (DC 7110). We proposed to change the duration of convalescence evaluations for DC 7000, DC 7005, and DC 7006 to three months; for DC 7018 (pacemaker implantation, formerly DC 7015) to two months; and for DC 7017 to three months. We proposed an indefinite period of convalescence evaluation with an examination at six months for DC 7016, DC 7110, DC 7011 (now ventricular arrhythmias), DC 7111 (aneurysm of any large artery), and DC 7123. We also proposed an indefinite period of convalescence evaluation, but with an examination at one year, for cardiac transplantation (DC 7019)

One commenter stated that VA should justify the proposed changes in periods of convalescence evaluation by citing medical experts or texts.

A report from Jefferson Medical College that included a clinical review of the cardiovascular portion of the rating schedule and recommendations for changes was available to us when we

undertook the revision of this body system. In addition, we received advice from the Veterans Health Administration and consulted standard medical texts such as "Cecil Textbook of Medicine" (James B. Wyngaarden, M.D. et al. eds., 19th ed. 1992), "Heart Disease" (Eugene Braunwald, M.D. ed., 4th ed. 1992), and "The Heart" (J. Willis Hurst, M.D. et al. eds., 7th ed. 1990). We published the proposed revision only after reviewing all of these sources of information. We have provided specific citations supporting many of the changes in the length of convalescence evaluations later in this document under the discussions of convalescence evaluation periods that have been changed.

One commenter stated that the proposed periods of convalescence evaluation do not represent the average impairment, but only the optimal recovery times. This commenter also stated that the changes in the duration of convalescence evaluations do not take into account advanced age, poor state of health, or the presence of etiologically related or concomitant disease.

The periods of convalescence evaluation we have established reflect, according to the sources noted above, the average periods of recovery needed by the average person following certain procedures and illnesses. These periods can be extended, when medically warranted, under the authority of 38 CFR 4.29 and 4.30.

One commenter said that the proposed changes in the length of convalescence evaluations appear to have been developed from a purely economic perspective.

As previously discussed, revisions to periods of convalescence evaluations were based on medical considerations

rather than cost projections.

One of the commenters suggested that where the length of convalescence evaluations has been reduced to two, three, or six months, all claims should be referred to the Adjudication Officer for a possible extension of the convalescence rating under 38 CFR 4.30(b)(2).

The rating agency itself has the authority to extend the period of convalescence evaluations for up to three months under the provisions of § 4.30; the approval of the Adjudication Officer is required only when extending a convalescence evaluation for a longer period. Referring claims to the Adjudication Officer when the medical evidence does not warrant any extension, or when the rating agency can extend the evaluation for a sufficient period on its own authority, would cause needless delay, and we have made no change based on this suggestion.

Several commenters objected to indefinite periods of convalescence evaluation with a mandatory VA examination at a prescribed time. In our judgment, however, this method of determining the length of the total evaluation is both fairer and more accurate than assigning a total evaluation for a specified length of time, since the evaluation will be based on actual residual disability as documented by the examination, and the veteran will receive advance notice of any change and have the opportunity to submit additional evidence showing that the change is not warranted.

One set of comments reflected the view that applying § 3.105(e) to indefinite periods of convalescence evaluations will cause significant administrative problems and, in some instances, significantly lengthen the period for which a convalescence evaluation is assigned. These concerns appear to be based on the assumption that if medical information justifying a certain period of convalescence

evaluation is not submitted until months or even years after the event, the condition must be evaluated as totally disabling from the date entitlement is established, through the entire intervening period, and until such time as an examination can be performed, advance notice be provided, and the effective date provisions of § 3.105(e) be observed.

Section 3.105(e) applies only to reductions in "compensation payments currently being made;" it does not apply in cases where a total evaluation is both assigned and reduced retroactively. We have established convalescence evaluations for indefinite periods under other portions of the rating schedule (See DC 7528, malignant neoplasms of the genitourinary system, in 38 CFR 4.115b and DC 7627, malignant neoplasms of gynecological system or breast, in 38 CFR 4.116), some having been in effect for over two years, and there is no evidence that they cause the type of administrative problems that the commenters foresee.

There were three introductory sections to the cardiovascular system in the previous rating schedule. Section 4.100, Necessity for complete diagnosis, named common types of heart disease and discussed the need for accurate diagnosis. Section 4.101, Rheumatic heart disease, discussed the course of rheumatic heart disease, the significance of a diagnosis of mitral insufficiency, possible etiologies for later developing aortic insufficiency, and the need for accurate diagnosis of a serviceconnected condition. Section 4.102, Varicose veins and phlebitis, discussed the need to determine impairment of deep circulation due to varicosities and included a requirement to assign a higher evaluation when there is phlebitis or deep impairment of circulation. We proposed to retitle the introductory sections: 4.100, as "Forms of heart disorder;" 4.101, as "Hypertension;" and 4.102, as "Varicose veins." We proposed to include in § 4.100 a list of common forms of heart abnormalities, a discussion of how to evaluate service-connected valvular heart disease or arrhythmia in the presence of nonservice-connected arteriosclerotic heart disease, and a statement that the identification of coronary artery disease (without occlusion or thrombosis) early in service is not a basis for service connection, but that any sudden development of coronary occlusion or thrombosis during service would be serviceconnected. However, as explained below, we have either deleted or relocated all of the material we had proposed to include in §§ 4.100, 4.101,

and 4.102, and we have, therefore, removed those sections and reserved them for future use.

One commenter suggested that we remove all material in §§ 4.100, 4.101, and 4.102 that refer to the issue of service connection because it is inappropriate to place criteria for determining entitlement to service connection in the rating schedule. A second commenter suggested that the material about the identification of coronary artery disease early in service not being a basis for service connection should be removed because the provision violates the statutory presumption of soundness at induction as set forth in 38 U.S.C. 1111.

The rules governing determinations of service connection are found in the regulations beginning at 38 CFR 3.303, rather than in the rating schedule, which is a guide to evaluating disabilities. We agree that rules affecting determinations of service connection are inappropriate in the rating schedule, and we have removed that portion of the material in § 4.100 that addressed the issue of service connection for coronary artery disease for that reason. We have also removed other provisions of §§ 4.101 and 4.102 that addressed service connection for cardiovascular conditions, as discussed below.

We had proposed including in § 4.102, varicose veins, a provision from VA's Adjudication Procedures Manual, M21-1, Part VI, that if varicose veins developed during active service in one leg, varicose veins developing in the other leg within three years, in the absence of an intercurrent cause, will also be service-connected. However, in response to this comment, we have determined that since it addresses the issue of service connection, it is not appropriate in the rating schedule, and we have removed it.

Two commenters suggested that these introductory sections specify which cardiovascular diseases should be service-connected when they develop subsequent to certain amputations.

38 CFR 3.310(b) provides that "ischemic heart disease or other cardiovascular diseases" developing in veterans who have suffered a serviceconnected amputation of one lower extremity at or above the knee, or service-connected amputations of both lower extremities at or above the ankles, shall be held to be the result of the service-connected amputation or amputations. Since that issue is addressed elsewhere in VA's regulations, it is unnecessary to address it here. Furthermore, as previously discussed, it would be inappropriate to include material about the

determination of service connection in the rating schedule.

One commenter recommended that we include more discussion of pertinent clinical and nonclinical factors to be considered in assigning evaluations within this portion of the rating schedule.

We have made a number of changes along these lines that will assist in the evaluation of cardiovascular conditions. Most significantly, we have adopted more objective evaluation criteria based on specific clinical (and, in some cases, laboratory) findings, e.g., by using the level of METs (metabolic equivalents, discussed in detail below) to assess the severity of heart disease. In addition, we have retained or added notes, as appropriate, containing clinical information, e.g., by adding a note defining characteristic attacks of Raynaud's syndrome.

One commenter suggested that § 4.100 discuss forms of heart disorder, § 4.101 discuss hypertension, and § 4.102 discuss varicose veins.

A regulation is an agency statement of general applicability and future effect, which the agency intends to have the force and effect of law, that is designed to implement, interpret, or prescribe law or policy, or to describe the procedure or practice requirements of an agency (Executive Order 12866, Regulatory Planning and Review). Background material, such as general medical information that is available in standard textbooks, or other material that neither prescribes VA policy nor establishes procedures a rating activity must follow, falls outside of those parameters and is, therefore, not appropriate in a regulation. The material about the age of onset, course, etc., of rheumatic fever in former § 4.101 is general medical information which has no bearing on evaluating the condition, and we have deleted this material as not appropriate in a regulation. Upon further review, we have deleted the list of heart abnormalities from proposed § 4.100 because it too is general medical information that we do not intend to have the force and effect of law.

We proposed to retitle § 4.101 "Hypertension," and to revise the content to include a prohibition against separately evaluating hypertension that is secondary to thyroid or renal disease; and a requirement that, in a veteran with service-connected hypertension, arteriosclerotic manifestations are to be service-connected. One commenter suggested adding more information to § 4.101 about secondary hypertension, to include specifying when secondary hypertension can be evaluated separately from the condition causing it.

The rule regarding evaluation of hypertension secondary to renal disease is included in the part of the rating schedule addressing the genitourinary system at § 4.115; secondary hypertension associated with a ortic insufficiency or thyroid disease, and isolated systolic hypertension, which may be secondary to arteriosclerosis, are addressed under DC 7101 (hypertensive vascular disease). Since the issue of service connection of secondary hypertension is addressed in more appropriate areas of the regulations, it should not be addressed here, and rather than expanding this material, we have deleted it from § 4.101

The material in proposed § 4.101 about conditions that are complications of hypertension or other medical conditions is also general medical information available in standard texts. As discussed above, it is not appropriate in a regulation, and we have, therefore, removed it. The issue of service connection for conditions that are proximately due to or the result of a service-connected condition is addressed at 38 CFR 3.310(a). It is, therefore, unnecessary to address the issue in § 4.101, and we have removed that material also.

In the former schedule, § 4.102, which was titled "Varicose veins and phlebitis," discussed the necessity of testing for impairment of deep circulation in varicose veins. We proposed to retitle it "Varicose veins" but to retain the material about deep circulation. Under the revised evaluation criteria for varicose veins adopted in this rule, however, determining whether the deep circulation is impaired is unnecessary because the evaluation criteria focus on functional impairment rather than the location of the venous insufficiency. We have, therefore, deleted that material from § 4.102.

Another commenter requested that we address in § 4.101 the advances in medical science or objective foundation for requiring that adjudicators attempt to apportion cardiac signs and symptoms that are attributable to nonservice-connected arteriosclerotic heart disease that is superimposed on service-connected rheumatic heart disease.

While it is often possible through modern technology to determine the separate effects of coexisting heart diseases, such a determination requires a medical assessment on a case-by-case basis and cannot be determined by regulation. We have, therefore, revised the material to require that the rating agency request a medical opinion when it is necessary to determine whether

current signs and symptoms can be attributed to one of the coexisting conditions. Since the material is not relevant to the entire cardiovascular portion of the rating schedule, we have moved it to a note under DC 7005, arteriosclerotic heart disease.

One commenter suggested adding a section to explain which diagnostic codes should not be combined in the case of coexisting cardiovascular diseases

As in the case of coexisting heart diseases, determining whether coexisting cardiovascular diseases have functional impairments that can be separately evaluated must be determined on a case-by-case basis, depending on the particular manifestations of each condition. We, therefore, make no change based on this suggestion.

One commenter recommended that we include cor pulmonale in the cardiovascular portion of the schedule.

Cor pulmonale is a combination of hypertrophy and dilatation of the right ventricle secondary to pulmonary hypertension, which is due to disease of the lung parenchyma or pulmonary vascular system (Braunwald, 1581). Since cor pulmonale is always secondary to a lung condition, and since it is included in the evaluation criteria for various conditions of the respiratory system, in our judgment it is not appropriate to include it in the cardiovascular portion of the rating schedule. For the sake of clarity, however, we have placed a note in § 4.104 before DC 7000 instructing rating agencies to evaluate cor pulmonale as part of the pulmonary condition that causes it.

The previous rating schedule provided a 100-percent evaluation for rheumatic heart disease (DC 7000) "as active disease and, with ascertainable cardiac manifestation, for a period of six months." We proposed to retitle DC 7000 "valvular heart disease," and to provide a 100-percent evaluation for "active infections with valvular heart damage for three months following cessation of therapy."

Three commenters objected to the proposed change in the length of the convalescence evaluation for DC 7000 (valvular heart disease).

(valvular heart disease). Rheumatic fever is th

Rheumatic fever is the condition most commonly associated with valvular heart damage, and its acute phase rarely lasts longer than three months (Braunwald, 1729). The level of activity following this period depends on the severity of residual disease (Cecil, 1637). While in the past patients with acute rheumatic fever were put to bed for several months, bed rest is no longer

considered necessary unless there is significant carditis (Hurst, 1527). In addition, most rebounds of rheumatic fever (that is, reappearances of clinical or laboratory evidence of acute rheumatic fever following cessation of treatment) occur within two weeks after cessation of therapy, and do not occur more than five weeks after complete cessation of anti-rheumatic therapy (Braunwald, 1730). In our judgment, three months following cessation of therapy is a reasonable period to allow for stabilization of valvular damage due to infection, and we have retained the convalescence provision as proposed, except for minor editorial changes.

We proposed that valvular heart disease (DC 7000) be evaluated on the basis of the level of physical activity, i.e., "any,", "ordinary," or "strenuous," required to produce cardiac symptoms, such as "dyspnea," "fatigue," etc. We received three comments objecting to the proposed criteria.

One commenter suggested that although the proposed general rating formula for rheumatic heart disease (DC 7000), arteriosclerotic heart disease (DC 7005), and ventricular arrhythmia (DC 7011) is consistent with the classifications of the New York Heart Association, they are mostly for subjective complaints, and the commenter suggested that the current criteria be retained except for deleting words like "characteristic" and "definitely." Another commenter stated that the proposed criteria for valvular heart disease are highly subjective and urged that we adopt objectively confirmable criteria at every level.

We agree that more objective criteria would result in more consistent evaluations. In our judgment, however, simply removing such terms as "characteristic" and "definitely" from the criteria in the previous schedule would not have the intended effect. We have, therefore, revised the criteria to incorporate objective measurements of the level of physical activity, expressed in METs (metabolic equivalents), at which cardiac symptoms develop. This does not represent a substantive change in the method of evaluating cardiac disabilities that we proposed, i.e., basing evaluations on the level of physical activity that causes symptoms, but is an objective method for measuring the level of activity that causes symptoms.

The exercise capacity of skeletal muscle depends on the ability of the cardiovascular system to deliver oxygen to the muscle, and measuring exercise capacity can, therefore, also measure cardiovascular function. The most accurate measure of exercise capacity is

the maximal oxygen uptake, which is the amount of oxygen, in liters per minute, transported from the lungs and used by skeletal muscle at peak effort (Braunwald, 1382). Because measurement of the maximal oxygen uptake is impractical, multiples of resting oxygen consumption (or METs) are used to calculate the energy cost of physical activity. One MET is the energy cost of standing quietly at rest and represents an oxygen uptake of 3.5 milliliters per kilogram of body weight per minute. The calculation of work activities in multiples of METs is a useful measurement for assessing disability and standardizing the reporting of exercise workloads when different exercise protocols are used (Braunwald, 162).

We have revised the evaluation criteria for the major types of heart disease based on: the level of physical activity, expressed in METs, that leads to cardiac symptoms; whether there is heart failure; the extent of any left ventricular dysfunction; the presence of cardiac hypertrophy or dilatation; and the need for continuous medication. We had proposed that valvular heart disease (DC 7000) be evaluated on the basis of the level of physical activity that produces symptoms—100 percent if "any," 60 percent if "ordinary," and 30 percent if "strenuous" activity produces symptoms. We have revised those criteria to assign a 100-percent evaluation if a workload of three METs or less produces dyspnea, fatigue, angina, dizziness, or syncope. A workload of three METs represents such activities as level walking, driving, and very light calisthenics. We have revised the criteria to assign a 60-percent evaluation if a workload of greater than three METs but not greater than five METs results in cardiac symptoms. Activities that fall into this range include walking two and a half miles per hour, social dancing, light carpentry, etc. We have revised the criteria to assign a 30-percent evaluation if a workload of greater than five METs but not greater than seven METs produces symptoms. Activities that fall into this range include slow stair climbing, gardening, shoveling light earth, skating, bicycling at a speed of nine to ten miles per hour, carpentry, and swimming (Fox, S. M. III, Naughton, J.P., Haskell, W.L.: Physical activity and the prevention of coronary heart disease. Ann. Clin. Res., 3:404, 1971 and Goldman, L. et al.: Comparative reproducibility and validity of systems for assessing cardiovascular functional class: Advantages of a new specific activity

scale. Circulation 64:1227, 1981). METs are measured by means of a treadmill exercise test, which is the most widely used test for diagnosing coronary artery disease and for assessing the ability of the coronary circulation to deliver oxygen according to the metabolic needs of the myocardium (Cecil, 175 and Harrison, 966).

Administering a treadmill exercise test may not be feasible in some instances, however, because of a medical contraindication, such as unstable angina with pain at rest, advanced atrioventricular block, or uncontrolled hypertension. We have, therefore, provided objective alternative evaluation criteria, such as cardiac hypertrophy or dilatation, decreased left ventricular ejection fraction, and congestive heart failure, for use in those cases. We have also indicated that when a treadmill test cannot be done for medical reasons, the examiner's estimation of the level of activity, expressed in METs and supported by examples of specific activities, such as slow stair climbing or shoveling snow that results in dyspnea, fatigue, angina, dizziness, or syncope, is acceptable.

The other objective criteria that we have added as alternatives to the METsbased criteria for valvular heart disease are a left ventricular ejection fraction of less than 30 percent or chronic congestive heart failure for a 100percent evaluation; a left ventricular ejection fraction of 30 to 50 percent, or more than one episode of acute congestive heart failure in the past year for a 60-percent evaluation; evidence of cardiac hypertrophy or dilatation on electrocardiogram, echocardiogram, or X-ray for a 30-percent evaluation, and a requirement for continuous medication for a 10-percent evaluation.

Since neurologic, gastrointestinal, and other cardiovascular disorders may result in symptoms similar to those for valvular heart disease, we have also added a requirement that valvular heart disease be documented by findings on physical examination and by echocardiogram, Doppler echocardiogram, or cardiac catheterization.

Another commenter felt that the proposed criteria for the 100-percent level for valvular heart disease (DC 7000), arteriosclerotic heart disease (DC 7005), and ventricular arrhythmias (DC 7011)—that "any" physical activity results in specified cardiac symptoms correlates not with total industrial impairment but with being housebound or helpless. Similarly, the commenter objected that the requirement for the 60percent level—that "ordinary" physical

activity results in symptoms—actually represents total impairment.

The proposed criteria for the 100percent level of these conditions were meant to indicate a severe level of impairment, but the language was imprecise and perhaps suggested a degree of impairment beyond total impairment. Under the more objective criteria that we are adopting here, a 100percent evaluation requires that a workload of three METs or less produces dyspnea, fatigue, angina, dizziness, or syncope. A workload of three METs includes such activities as level walking, driving, and very light calisthenics. While the development of cardiac symptoms at this level of activities indicates total impairment, it does not suggest that the patient is either housebound or helpless. Similarly, under the more objective criteria, a 60-percent evaluation requires that a workload of greater than three METs but not greater than five METs produces cardiac symptoms. Since activities that fall into this range include walking two and a half miles per hour, social dancing, and light carpentry, this range does not represent total impairment. In our judgment, by adopting more objective criteria, we have eliminated the problem that the commenter identified.

The prior schedule assigned a 10percent evaluation under DC 7000 (rheumatic heart disease, now designated as valvular heart disease), when there was an identifiable valvular lesion, with little dyspnea and no cardiomegaly. We proposed to delete the 10-percent level and to evaluate the condition as zero percent disabling if it does not limit physical activity.

Two commenters objected to the proposed deletion of a 10-percent level of evaluation for valvular heart disease. One suggested a 10-percent evaluation when dietary adjustments and medication are necessary to control symptoms or prevent emboli; the other suggested a 10-percent evaluation for asymptomatic valvular heart disease or arrhythmias that require medication.

Upon further consideration, we have added a 10-percent evaluation, which will be assigned when symptoms develop at a workload of greater than 7 METs but not greater than 10 METs. Activities that fall into this range include jogging, playing basketball, digging ditches, and sawing hardwood. When symptoms develop only during such activities, there may be some impairment of earning capacity, but it is likely to be slight. We have also established an alternative criterion for a 10-percent evaluation—the need for continuous medication-consistent with

the 10-percent evaluations assigned under other body systems, e.g., gynecological and endocrine conditions, when continuous medication is required. We have also deleted the zeropercent level of evaluation as unnecessary, since zero percent may be assigned under any diagnostic code when the criteria for a compensable evaluation are not met (38 CFR 4.31)

DC 7000 was titled "rheumatic heart disease" in the previous schedule. We proposed to retitle it "valvular heart disease," and to specify that it included rheumatic heart disease, syphilitic heart disease, and sequelae involving valvular heart damage from endocarditis, pericarditis, or trauma. Because each of the conditions listed under DC 7000 (except trauma) has its own diagnostic code and criteria, we have revised the title to "valvular heart disease (including rheumatic heart disease)" and deleted the list of conditions. The term "valvular heart disease" encompasses all types of valvular disease not otherwise specified, including those due to trauma.

We proposed to require that endocarditis (DC 7001), pericarditis (DC 7002), and pericardial adhesions (DC 7003) be rated as valvular heart disease. We have instead repeated the evaluation criteria under each diagnostic code to which they apply. We have also deleted the three-month period of convalescence evaluation that would have been available for pericardial adhesions if evaluated strictly under the criteria for valvular heart disease (DC 7000); pericardial adhesions are a chronic condition rather than an acute infection, and a convalescence evaluation is, therefore, inappropriate.

We proposed that syphilitic heart disease (DC 7004) be evaluated under the criteria for either valvular heart disease or aortic aneurysm (DC 7110). We have now provided criteria for DC 7004 that are based on the same objective measurements of the level of physical activity that causes symptoms. We placed a note following this diagnostic code directing that syphilitic aortic aneurysms be evaluated under DC 7110 (aortic aneurysm), since the criteria under DC 7110 apply to aortic aneurysm of any etiology. Since syphilitic heart disease has no phase of active infection, being the late result of a much earlier syphilitic infection, we have omitted the criteria based on active infection, as we did under DC 7003.

We proposed to revise the length of convalescence evaluation following a myocardial infarction (DC 7005 or 7006) from six months to three months. One commenter objected that three months represents the optimal, rather than the

average, recovery period following myocardial infarction.

The interval between an uncomplicated myocardial infarction and return to work is 70–90 days (Braunwald, 1390), and a return to work evaluation can be performed within five weeks after an uncomplicated myocardial infarction ("The Heart" 1115 (J. Willis Hurst, M.D. et al. eds., 7th ed. 1990)). Complete healing of the myocardium, i.e., replacement of the infarcted area by scar tissue, takes six to eight weeks, and most patients will be able to return to work by 12 weeks, many much earlier ("Harrison's Principles of Internal Medicine" 956-57 (Jean D. Wilson, M.D. et al. eds., 12th ed. 1991)). This information clearly establishes that most patients with myocardial infarction recover within three months, and, in our judgment, that is an adequate period for a convalescence evaluation.

Another individual said that three months is not an adequate length of convalescence evaluation following myocardial infarction because it takes six months, which according to the commenter is the normally accepted recovery time, for ancillary circulation

patterns to develop.

The development of collateral circulation represents a long-range adaptation to ischemia due to coronary artery disease (Hurst, 944). It is, therefore, more relevant in predicting whether an infarction will occur or how severe it might be, than in determining the length of convalescence after infarction, and we have made no change based on this comment.

In response to requests for more objective criteria, we have adopted criteria for the 10-, 30-, 60-, and 100percent levels for arteriosclerotic heart disease using the same METs-based criteria we have adopted for DC 7000 (valvular heart disease). We have also adopted similar alternative criteria based either on chronic or multiple episodes of congestive heart failure, left ventricular dysfunction with decreased ejection fraction percentages, or cardiac hypertrophy or dilatation.

The prior rating schedule assigned 30percent evaluations under DCs 7005 (arteriosclerotic heart disease) and 7006 (myocardium, infarction of, due to thrombosis or embolism) "following typical coronary occlusion or thrombosis," or "with history of substantiated anginal attack, ordinary manual labor feasible," but provided neither a 10-percent level nor specific criteria for a zero-percent evaluation. We proposed to assign a 30-percent evaluation for those with cardiac symptoms appearing after strenuous

physical activity, and to establish a zero-percent level for those with no limitation of physical activity.

Two commenters objected to the proposed changes. One suggested we provide a 20-percent level under DC 7005 for some limitation of activities and a 30-percent level for one or more symptoms. One felt that 30 percent should be the minimum under DC 7005 or DC 7006 because permanent disability results.

In keeping with the objective evaluation criteria we are adopting, it is feasible to establish additional levels of impairment based on an objective measurement of the workload at which symptoms develop. We have added a 10-percent evaluation under DC's 7005 and 7006 for those who have cardiac symptoms at a workload greater than 7 METs but not greater than 10 METs, which includes such activities as gardening and skating. The 10-percent evaluation may also be assigned when continuous medication is required, which is consistent with the evaluation of other heart conditions. As a result, if, for different conditions, the same workload elicits symptoms, the conditions will be assigned the same evaluation. A 30-percent minimum evaluation is not warranted. Arteriosclerotic heart disease may be mild enough that it imposes little or no functional impairment, and, in our judgment, the most equitable way to evaluate the condition is to do so objectively according to the physical workload that causes symptoms.

We proposed that arteriosclerotic heart disease (DC 7005) and myocardial infarction (DC 7006) be evaluated under the same criteria. That was reasonable under the subjective evaluation criteria that were proposed, but there are some condition-specific differences that the criteria must reflect. We have provided for a three-month convalescence evaluation following a myocardial infarction (DC 7006), a condition of sudden onset. Arteriosclerotic heart disease (DC 7005), on the other hand, is a chronic condition that does not warrant a convalescence evaluation. We have added a requirement to DC 7005 that the veteran have "documented" coronary artery disease. Similarly, we have headed DC 7006 with the statement "with history of myocardial infarction, documented by laboratory tests." This replaces the requirement that the myocardial infarction be "typical" in order to assign the convalescence evaluation. Since atypical myocardial infarctions may be just as disabling as typical ones, we have revised the criteria for a convalescence rating to require that an

infarction be "documented" rather than 'typical.'

We have deleted the instruction proposed under DC 7005 that cardiomyopathies (DC 7020) and hypertensive heart disease (DC 7007) are to be rated as arteriosclerotic heart disease because we have provided each of these conditions with criteria under its own diagnostic code.

We proposed that hypertensive heart disease (DC 7007) be evaluated under the criteria for arteriosclerotic heart disease, i.e., percentage evaluations based on the level of activity that causes symptoms, and we have revised the criteria using the same objective evaluation criteria as for arteriosclerotic heart disease.

We have made minor editorial changes under DC 7008 (hyperthyroid heart disease).

We proposed that a 30-percent evaluation under DC 7010 (supraventricular arrhythmias) require paroxysmal atrial fibrillation or other supraventricular tachycardia, with severe frequent attacks despite therapy, and that the 10-percent evaluation require permanent atrial fibrillation or infrequent or mild attacks documented by electrocardiogram (ECG) or Holter monitor.

Two commenters pointed out that such phrases as "severe, frequent attacks" are indefinite, and one suggested that we replace these terms with more objective ones.

We agree and have revised the criteria to require more than four episodes a year of paroxysmal atrial fibrillation or other supraventricular tachycardia for the 30-percent level, and permanent atrial fibrillation or one to four episodes a year of paroxysmal atrial fibrillation or other supraventricular tachycardia for the 10-percent level. Both sets of criteria require documentation by ECG or Holter monitor.

We proposed to evaluate sustained ventricular arrhythmias (DC 7011) according to whether "ordinary" or "strenuous" activity results in palpitations or symptoms of arrhythmia. A commenter objected to the subjectivity of the proposed criteria for DC 7011.

Based on this comment, we have revised the criteria using the same objective measurements that we are using for arteriosclerotic heart disease. We have, however, retained specific provisions for a total evaluation while an Automatic Implantable Cardioverter-Defibrillator (AICD) is in place. The use of AICDs is associated with the potential for serious complications such as myocardial infarction, stroke, cardiogenic shock, and complications

associated with the thoracotomy required for its insertion (Braunwald, 750). We have revised the language slightly to make it clear that a 100percent evaluation will be assigned for as long as the AICD is in place. We have also made other nonsubstantive changes in the language at 100 percent for the sake of clarity.

The previous schedule provided a 100-percent evaluation for DC 7015, atrioventricular block, for one year following implantation of a pacemaker when required by a complete heart block with attacks of syncope, and a 60percent evaluation for complete heart block with Stokes-Adams attacks several times a year despite medication or a pacemaker. We proposed to eliminate the 100-percent level while retaining essentially the same criteria for the other levels.

One commenter stated that a 100percent evaluation is warranted under DC 7015 when there is a complete heart block with syncopal attacks despite therapy or a pacemaker. Another commenter suggested that we replace the requirement for "several" attacks a year for the 60-percent evaluation under DC 7015 with a definite number.

Upon further review, in response both to these comments and to the requests for more objective criteria, we have revised the criteria for DC 7015 by providing the same objective evaluation criteria we have used for ventricular arrhythmias (DC 7011) and many other heart conditions, since heart block may result in a variety of cardiac signs and symptoms and a wide range of disabilities. This change restores the 100-percent evaluation level. These criteria replace evaluation criteria based on the electrocardiographic designation of complete or incomplete block. Because both complete and incomplete heart blocks can differ in severity, basing evaluations on the degree of heart block could lead to different evaluations for similar symptoms. In our judgment, the revised criteria are a better measure of the disabling effects of atrioventricular block than whether the block is complete or incomplete.

The only difference in the criteria for atrioventricular block (DC 7015) and ventricular arrhythmias (DC 7011) is that a 10-percent evaluation for DC 7015 will be assigned when either a pacemaker, a common method of treatment for this condition, or continuous medication is required. We have deleted the proposed zero-percent evaluation, since under the provisions of 38 CFR 4.31a, a zero-percent evaluation may be assigned when the findings are less than those needed for a compensable level. We have also

edited the note requiring that certain unusual cases of associated arrhythmias are to be submitted to the Director of the Compensation and Pension Service for evaluation, for the sake of clarity.

The previous schedule established a minimum 30-percent evaluation for heart valve replacement (DC 7016); we proposed a 30-percent evaluation when strenuous activity causes specific cardiac symptoms, and a zero-percent evaluation when the condition imposes no limitation of physical activity. One commenter suggested that we retain the 30-percent minimum evaluation, but gave no rationale for the suggestion.

The level of residual disability following valve replacement can also be objectively determined based on the level of activity that results in symptoms in the same manner as for valvular heart disease. We have, therefore, revised the criteria to assign a 30-percent evaluation when a workload of greater than 5 METs but not greater than 7 METs results in symptoms, or when there is evidence of cardiac hypertrophy or dilatation. For the sake of consistency with the evaluation criteria for other heart conditions evaluated based on the level of physical activity that causes symptoms, we have added a ten-percent evaluation when a workload of greater than 7 METs but not greater than 10 METs results in symptoms. In our judgment, specific symptoms warrant the same evaluation whether they occur before or after valve replacement, and we are not aware of any special circumstances following valve replacement that would justify a 30-percent minimum evaluation.

We have edited the language of the note regarding the assignment of 100 percent following admission for heart valve replacement to assure that the provisions of § 3.105(e) will be followed whether the reduction from the 100percent evaluation is based upon the mandatory examination six months following discharge or following a subsequent examination.

The previous schedule called for a total evaluation for one year following heart valve replacement (DC 7016). We proposed a total evaluation for an indefinite period, with a mandatory VA examination six months after the surgery, with any change in evaluation based on that or any subsequent examination to be made under the provisions of 38 CFR 3.105(e).

One commenter objected to the proposed change, stating that heart valve replacement is a high risk surgical procedure, and many patients have post-operative congestive heart failure for a considerable time. Another commenter said that the proposed

reduction in length of the convalescence evaluation is arbitrary, that it goes beyond the purpose of the review, and that no justification has been provided.

We recognize that it ordinarily takes patients longer to recover from valve replacement than from acute valvular infection, endocarditis, or pericarditis and, therefore, proposed an indefinite period of total evaluation. We believe that six months following discharge from the hospital is a reasonable time at which to examine a patient to determine whether the condition has stabilized and the extent of residual disability. If the results of that or any subsequent examination warrant a reduction in evaluation, the reduction will be implemented under the notice and effective date provisions of 38 CFR 3.105(e), which require a 60-day notice before VA reduces an evaluation and an additional 60-day notice before the reduced evaluation takes effect. By requiring an examination, the revised procedure will assure that all residuals are documented; it also ensures that the veteran receive timely notice of any proposed action and have an opportunity to present evidence showing that the proposed action should not be taken. In our judgment, this method will better ensure that actual residual disabilities and recuperation times are taken into account because they will be documented on examination.

We proposed to change the length of the total evaluation following coronary artery bypass surgery (DC 7017) from one year to three months. One commenter objected, stating that unspecified medical textbooks suggest resumption of sedentary activity over the two-to three-month period following surgery, with resumption of full activity after three months. Another expressed his belief that a reduction to three months is unreasonably restrictive and does not reflect the average impairment for those in poor health or those who have cardiomyopathies or pulmonary and systemic organ congestion.

An article in the Journal of the American College of Cardiology (1029) vol. 14, no. 4, Oct. 1989) entitled "Insurability and Employability of the Patient with Ischemic Heart Disease' states that return to work evaluations are appropriate seven weeks after bypass surgery. Neither this article nor the unidentified information cited by the commenter justifies the need for a convalescence evaluation longer than three months. For the individual who requires a longer than average period of convalescence, a total evaluation may be assigned for a longer period under the provisions of §§ 4.29 and 4.30 of the

rating schedule. We have, therefore, retained the provision assigning a total evaluation for three months following

surgery as proposed.

We proposed that coronary artery bypass surgery be evaluated using the evaluation criteria for arteriosclerotic heart disease, which was not a change from the previous schedule. One commenter suggested that 30 percent be the minimum evaluation following bypass surgery, analogous to arteriosclerotic heart disease (DC 7005).

We have provided objective criteria for evaluation following coronary bypass surgery that are the same as the criteria we have provided for arteriosclerotic heart disease (DC 7005). The surgery itself does not necessarily produce a 30-percent level of impairment; in fact, it often alleviates the disability from arteriosclerotic heart disease. In our judgment, an evaluation based on the workload at which symptoms develop is a reasonable and consistent way to assess the extent of disability; a 30-percent evaluation will be assigned if symptoms develop at the same workload that warrants a 30percent evaluation for other cardiac conditions.

One commenter suggested that we add a convalescence evaluation following balloon angioplasty for

coronary artery disease.

Most patients who undergo balloon angioplasty are discharged from the hospital 24 hours or less after surgery, and many can return to work in a week or less after a successful and uncomplicated angioplasty (Hurst, 2145 and Braunwald, 1367). In our judgment, a total evaluation for a specified period to allow for convalescence is, therefore, not warranted.

We proposed changing the duration of the total evaluation following implantation of a cardiac pacemaker (currently Note (2) under DC 7015, proposed as DC 7018) from one year to two months. One commenter said that the total evaluation should continue for one year; another said that pacemakers require close monitoring postoperatively and that patients should not concern themselves with a return to activity sooner than medically advisable.

Pacemaker implantation is not major surgery, nor is it associated with debilitating or long-term residuals. Those who undergo a cardiac pacemaker implantation are usually discharged from the hospital the following day and are seen in follow-up two weeks after surgery to check the wound and to test the pacing system (Hurst, 2103–4). They are subsequently evaluated two months after implantation, and virtually all patients

will have definitive pacemaker programming for long-term function at that time (Braunwald, 747). Thereafter, there is periodic monitoring, often conducted by telephone. In our judgment, a two-month convalescence evaluation is adequate for a normal recovery from pacemaker implantation.

One commenter suggested that we add a 100-percent evaluation under DC 7018, implantable cardiac pacemakers, for those patients who require frequent follow-up and adjustment after

pacemaker implant.

DC 7018 allows evaluation of a patient's condition following implantation of a pacemaker under supraventricular arrhythmias (DC 7010), ventricular arrhythmias (DC 7011), or atrioventricular block (DC 7015), if appropriate. A 100-percent evaluation may, therefore, be assigned based either on symptoms or on the number of episodes of arrhythmia, depending on the diagnostic code used. These criteria are a better indicator of residual disability than the frequency of adjustments or follow-up, and we have made no change based on this suggestion.

Another commenter felt that 30 percent should be the minimum evaluation for DC 7018 after a pacemaker has been implanted.

A pacemaker requires regular checkups and monitoring, often by telephone, but the patient may, in fact, be asymptomatic. An evaluation of 10 percent rather than 30 percent is more appropriate for such cases, and we have added a minimum evaluation of 10 percent to the criteria under DC 7018. This is comparable to the assignment of 10 percent for other cardiac conditions when continuous medication is required.

One commenter suggested that we add a caveat under pacemaker implantation (DC 7018) that reimplantation or replacement of a pacemaker does not warrant a 100-

percent evaluation.

The total evaluation for two months following implantation of a pacemaker is to provide a period of recuperation from the surgery and any possible side-effects, as well as to provide a period to adjust the device itself and test the response of the individual's heart. These considerations apply as well to the replacement of a pacemaker, and, in our judgment, limiting convalescence evaluations to the initial implantation only is not warranted.

We proposed to add a new diagnostic code (DC 7019) for cardiac transplantation allowing a total evaluation for an indefinite period following the transplant, with a

mandatory VA examination to be conducted one year later. In the past, with no provision for cardiac transplantation in the rating schedule, a fixed period of convalescence evaluation for two years was assigned, analogous to what the rating schedule provided following renal transplant prior to the revisions to the genitourinary portion of the rating schedule published January 18, 1994.

One commenter stated that the total evaluation following cardiac transplantation (DC 7019) should continue for two years because the risk of rejection and survival data show that

this is dangerous surgery.

Because more than 85 percent of oneyear survivors of a cardiac transplant have been rehabilitated and return to work or to school by the end of one year after transplant (Hurst, 2253–54), in our judgment, one year following hospital discharge is a reasonable time to conduct an examination in order to assess residual disability. As with other indefinite periods of convalescence evaluation, any change in evaluation based on the results of the examination will be implemented under the notice and effective date provisions of § 3.105(e), which require VA to notify the claimant of any proposed reduction, once the examination has been carried out and reviewed, and allows 60 days for the claimant to provide additional evidence to show that a reduction should not be carried out.

We proposed to evaluate cardiac transplantation (DC 7019) under the same criteria as arteriosclerotic heart disease (DC 7005), i.e., according to the level of activity that causes symptoms; we have, therefore, revised the criteria using the same objective measurements that we have adopted for evaluating arteriosclerotic heart disease. We proposed a minimum 30-percent evaluation following cardiac transplantation as long as the veteran is on immunosuppressive medication. Because almost every patient will permanently require immunosuppressive therapy following cardiac transplantation, we have simply made 30 percent the minimum evaluation and deleted the requirement that the veteran be taking immunosuppressive medication. This is consistent with the minimum evaluation for kidney transplant (DC 7531), which was published in the Federal Register of January 18, 1994 (59 FR 2523).

We also proposed to evaluate cardiomyopathy (DC 7020) under the same criteria as arteriosclerotic heart disease (DC 7005), i.e., according to the level of activity that causes symptoms;

we have, therefore, revised the criteria using the same objective measurements that we have adopted for evaluating arteriosclerotic heart disease.

The previous schedule had a diagnostic code, DC 7100, for generalized arteriosclerosis, which we proposed to delete. One commenter objected, stating that this condition, which is often present in geriatric cases, produces total industrial incapacity with involutional changes such as cerebral ischemia with reduced mentation, bone and muscle atrophy,

The effects of generalized arteriosclerosis are so widespread that, in our judgment, a single diagnostic code is neither appropriate nor necessary. Many diagnostic codes, such as DC 7005, arteriosclerotic heart disease, DC 7114, arteriosclerosis obliterans, and DC 9305, multi-infarct dementia associated with cerebral arteriosclerosis, represent potential effects of arteriosclerosis on end organs, and evaluating each disability resulting from generalized arteriosclerosis under an appropriate code will result in more accurate assessments of the actual disabilities caused by the condition. We have, therefore, made no change based on this comment.

Two commenters requested that we define the term hypertension (DC 7101).

In response to this comment, we have revised Note (1) under DC 7101 to state that, for purposes of this section, hypertension means that the diastolic blood pressure is predominantly 90mm. or greater, and that isolated systolic hypertension means that the systolic blood pressure is predominantly 160mm. or greater with a diastolic blood pressure of less than 90mm. (Cecil, 253, based on the 1988 report of the Joint National Committee on Detection, Evaluation, and Treatment of High Blood Pressure).

Since both essential hypertension and secondary types of hypertension, such as isolated systolic hypertension due to arteriosclerosis, may be evaluated under this diagnostic code, we have revised the title of DC 7101 from Hypertensive vascular disease (essential arterial hypertension) to Hypertensive vascular disease (hypertension and isolated systolic hypertension).

In the previous schedule, Note (1) under DC 7101 (hypertensive vascular disease) stated that the 40- and 60percent evaluations required careful attention to diagnosis and repeated blood pressure readings. We proposed to revise the note to state that careful and repeated measurements of blood pressure readings are required prior to

the assignment of any compensable evaluation.

Two commenters requested that we clarify the meaning of the note. Standard medical texts recommend multiple blood pressure readings for the diagnosis of hypertension, although the number of measurements recommended varies, with "at least three sets over at least a three-month interval" (Braunwald, 818) and "at least two measurements on two separate examinations" (Harrison, 1001) among the specific recommendations. We have revised the note to require that hypertension be confirmed by readings taken two or more times on each of at least three different days. This will assure that the existence of hypertension is not conceded based solely on readings taken on a single, perhaps unrepresentative, day.

In a note under DC 7101 (hypertensive vascular disease), the previous schedule established a minimum evaluation of ten percent when medication is necessary to control hypertension with a history of diastolic blood pressure predominantly 100 or more. We proposed to keep this note.

One commenter asked if 10 percent should be assigned whenever continuous medication is required for any disorder; another asked if the assignment of 10 percent for hypertension should depend on the amount of medication required.

In our judgment, it would not be appropriate to assign a ten-percent evaluation for every condition which requires continuous treatment by medication. Whether a ten-percent evaluation is warranted when continuous medication is required is based on a case-by-case assessment of each condition and the usual effects of treatment. As to the second comment, the evaluation for hypertension is based not on the amount of medication required to control it, but on the level of control that can be achieved. While there may be more side effects with higher levels of medication or with combined antihypertensive medications, the disabling side effects of medication may be separately evaluated under the provisions of 38 CFR 3.310(a).

Since the provision concerning the assignment of a minimum ten-percent evaluation when there is a history of diastolic pressure predominantly 100 or more and continuous medication is required represents part of the evaluation criteria, we have included it in the criteria for a ten-percent evaluation, rather than in a separate note, as proposed.

The previous schedule called for a 100-percent evaluation for aortic

aneurysm (DC 7110) when there are markedly disabling symptoms and for one year following surgical correction. Because of a typographical error, omission of a semicolon, the proposed criteria as published implied that a total evaluation would be assigned following surgery only if the aneurysm had been 5 cm. or more in diameter. One commenter pointed out this error. We had intended to propose that veterans be evaluated as totally disabled under either of two circumstances: (1) If the aneurysm is 5 cm. or greater in diameter, or (2) for six months following resection of an aneurysm of any size. We have corrected the error in the final rule.

In addition, to assure internal consistency, we have revised the criteria to allow a 100-percent evaluation under DC 7110 in an additional situation: when an aortic aneurysm is symptomatic. Under DC 7111, aneurysm of any large artery is evaluated at 100 percent if it is symptomatic. Since the aorta is the largest artery in the body, it would be inconsistent and inequitable not to allow the same evaluation that the schedule provides for symptomatic aneurysms of other large arteries.

The previous schedule assigned a minimum 20-percent evaluation following surgical correction of aortic aneurysm (DC 7110). We proposed to evaluate residuals following surgical correction on actual residual disability, according to the organ system affected, in lieu of assigning a minimum evaluation. A commenter recommended that we retain the 20-percent minimum evaluation following surgery, contending that after such surgery individuals lead a tenuous and extremely sedentary existence, often requiring revision of the graft.

There is a wide range of possible complications and residual disability following surgical correction of an aortic aneurysm, depending on such factors as the location of the aneurysm, its type (dissecting or not), etc. Because some would warrant a higher, and some a lower, evaluation than 20 percent, in our judgment it is preferable to evaluate the actual residuals rather than provide a minimum evaluation, and we have made no change based on this comment.

We proposed to eliminate the fixed one-year period of convalescence evaluation following surgical correction of an aortic aneurysm (DC 7110) in favor of a 100-percent evaluation for an indefinite period from the date of admission for surgical correction, with a mandatory VA examination six months following discharge, and with any change in evaluation subject to the notice and effective date provisions of

§ 3.105(e). One commenter urged that we retain the one-year convalescence evaluation, but gave no specific reasons. We also proposed an indefinite total evaluation following repair of an aneurysm of a large artery (DC 7111) although the previous schedule had provided no post-surgical total evaluation. One commenter suggested that a one-year period of convalescence evaluation would be appropriate following repair of an aneurysm of a large artery because, as after aortic aneurysm repair, these patients lead a tenuous and sedentary existence after

The period of total evaluation following surgery under DCs 7110 and 7111 will continue indefinitely under the revised schedule, and an examination six months following the date of admission for surgical correction will determine whether a change in evaluation is warranted, based on actual residuals documented at that time. Since any change will be implemented under the notice and effective date provisions of § 3.105 (e), the veteran will have the opportunity to present medical evidence if he or she disagrees with the proposed change in evaluation. These provisions assure an evaluation that reflects the actual disability as documented by medical examination, and we have made no change based on these comments.

The previous schedule assigned a 10-percent evaluation for aneurysm of any small artery (DC 7112); we proposed that such an aneurysm be assigned a zero-percent evaluation. One commenter stated that the proposed change is based on empirical, as opposed to statistical, evidence and that evaluations that have stood the test of time should not be routinely reduced or discontinued.

Small artery aneurysms may produce symptoms such as headaches or visual abnormalities due to local pressure effects, and an aneurysm that ruptures may result in a wide variety of symptoms. However, small artery aneurysms that are asymptomatic are found in about five percent of the population (Cecil, 2165). Because of the wide range of possible disabling effects, it is appropriate to rate each one on the actual findings rather than provide a 10percent evaluation in all cases. In our judgment, an asymptomatic aneurysm of a small artery has no disabling effects and does not warrant a compensable evaluation.

Another commenter asked where and how to rate cerebral aneurysms. Aneurysms of cerebral arteries are evaluated under DC 7112, as are all other aneurysms of small arteries. We

have made no change in response to this comment.

The previous schedule specified a minimum evaluation of 60 percent for traumatic arteriovenous aneurysm (DC 7113) when there is cardiac involvement, and we proposed no change. One commenter, noting that designating a minimum evaluation implied that a higher one could be assigned, asked what findings would warrant an evaluation higher than 60 percent, since 60 percent was also the highest evaluation under DC 7113.

The most serious potential consequence of arteriovenous aneurysm is congestive heart failure due to high output, which would warrant a 100-percent evaluation. We have, therefore, added a 100-percent evaluation, to be assigned if there is high output heart failure.

In response to the request for more objective criteria, we have revised the criteria for a 60-percent evaluation under DC 7113 to require an enlarged heart, wide pulse pressure, and tachycardia rather than the ambiguous term "cardiac involvement" that we had proposed. We have revised the criteria for the 50-percent level for lower extremity involvement or the 40-percent level for upper extremity involvement, which were proposed as "without cardiac involvement with marked vascular symptoms," to require edema, stasis dermatitis, and either ulceration or cellulitis. We have revised the criteria for the 30-percent level for lower extremity involvement or the 20-percent level for upper extremity involvement, which were proposed as "with definite vascular symptoms," to require edema or stasis dermatitis. These are not substantive changes, but more specific designations of the cardiac and vascular signs that warrant these evaluations. We have also revised the title of DC 7113 from "arteriovenous aneurysm, traumatic" to "arteriovenous fistula, traumatic," the currently accepted term for the condition, which is a direct communication between an artery and a

One commenter requested that we add a paragraph under arteriosclerosis obliterans (DC 7114) addressing the evaluation of aorto-femoral bypass grafts.

To assure consistent evaluations of the residuals of aortic and large arterial bypass surgery, we have added a note under DC 7114 stating that the residuals of aortic and large arterial bypass surgery or arterial grafts are to be rated under that code. Since the most common residuals of bypass surgery are signs and symptoms of arterial insufficiency, it is appropriate to

evaluate them under the criteria for arteriosclerosis obliterans.

Two commenters suggested we provide a specific period of convalescence evaluation following bypass surgery for aortoiliac and femoral-popliteal artery disease.

The evaluation criteria for serious complications that might result from bypass surgery and, therefore, be service-connected under the provisions of 38 CFR 3.310(a), such as myocardial infarction, have their own periods of convalescence evaluation. For the milder complications, or the uncomplicated cases, the standard periods of convalescence evaluation authorized under § 4.30 of this part are adequate, and we have made no change based on these comments.

The criterion for the 40-percent evaluation for arteriosclerosis obliterans (DC 7114) in the previous schedule was 'well-established cases with intermittent claudication or recurrent episodes of superficial phlebitis;" we proposed to revise this criterion to "well-established cases of intermittent claudication with associated physical findings (hair loss, skin changes)." We proposed for the 100-percent level: 'severe, with marked physical signs producing total incapacity"; for the 60percent level: "claudication on minimal walking (less than three miles per hour on a level grade) with persistent coldness of the extremity"; and for the 20-percent level: "minimal circulatory impairment, with paresthesias, temperature changes and occasional claudication." One commenter noted that the phrase "well-established cases" is one of the vague, indefinite, and arbitrary elements in the schedule.

In response to both that comment and the requests for more objective criteria, we have revised the criteria under this diagnostic code: To specify at each evaluation level the distance that can be covered before claudication occurs; and to base evaluations on objective physical findings, such as peripheral pulses, trophic changes, persistent coldness, and deep ischemic ulcers. We have also added an objective alternative criterion, the ankle/brachial index, at each level, and a note explaining that this index is obtained by dividing the systolic blood pressure at the ankle by the systolic blood pressure in the arm. The ratio is normally one or greater; but because arterial occlusive disease obstructs the blood flow in the legs, the ratio in patients with that condition is less than one. A ratio of less than 0.5 is consistent with severe ischemia (Harrison, 1019). The ankle/brachial index thus allows a noninvasive

objective assessment of the severity of peripheral vascular disease.

We proposed to evaluate Raynaud's syndrome (DC 7117) as 100-percent, 60percent, 40-percent, or 20-percent disabling, using measures such as "marked" circulatory changes, "multiple" ulcerated areas, "frequent" vasomotor disturbances, and "occasional" attacks of blanching or flushing. One commenter suggested that we replace subjective terms with more objective requirements.

Simply replacing the indefinite words would not result in truly objective criteria. We have, therefore, defined "characteristic attacks" of Raynaud's disease for VA purposes as consisting of sequential color changes of the digits lasting minutes to hours, sometimes with pain and paresthesias, and precipitated by exposure to cold or by emotional upsets. We have revised the evaluation criteria based on the frequency of characteristic attacks, the number of digital ulcers, and whether autoamputation in one or more digits has occurred. While we proposed no change in the former 20-percent level, which required "occasional attacks of blanching or flushing," under the more objective criteria we have provided both a 20- and a 10-percent level, with 20percent requiring characteristic attacks four to six times a week, and 10-percent requiring characteristic attacks one to three times a week. This will ensure more consistent evaluations in milder cases of Raynaud's, where, in the former schedule, the assignment of zero percent or 20 percent depended on an individual rater's interpretation of 'occasional.'

One commenter suggested that we include neurologic symptoms associated with exposure to low or subfreezing temperatures under the evaluation criteria for DC 7117.

In response to this comment, we have included pain and paresthesias, which are neurologic symptoms, among the possible manifestations of the characteristic attacks of Raynaud's syndrome.

We proposed to assign 40-percent, 20percent, and zero-percent evaluations for angioneurotic edema (DC 7118), based generally on the frequency, severity, and duration of attacks. One commenter recommended that we add a 10-percent evaluation; another recommended that we replace language such as "frequent" and "infrequent" with more definite terms.

Angioneurotic edema is a condition that is ordinarily self-limited, with attacks subsiding in one to seven days (Merck, 333), but at times palliative treatment is used. There are also

unusual types that are more persistent and resistant to therapy. We have established more objective criteria based on the typical duration of attacks, their frequency, and on whether there is laryngeal involvement. We have added a 10-percent evaluation, to be assigned if attacks without laryngeal involvement occur two to four times a year. These criteria will foster more consistent evaluations for angioneurotic edema, since different raters will not be required to interpret subjective terms such as "mild," "moderate," "frequent," and "infrequent."

One commenter suggested that when angioneurotic edema affects the larvnx even briefly, a 10-percent evaluation is warranted.

In our judgment, angioneurotic edema affecting the larynx does warrant separate consideration in the evaluation criteria because laryngeal edema commonly causes respiratory distress due to airway obstruction and requires emergency treatment. This situation is serious enough that if it occurs once or twice a year, it warrants a 20-percent evaluation; if it occurs more than twice a year, it warrants a 40-percent evaluation.

A second commenter objected that the proposed changes to DC 7118 were based on empirical, as opposed to statistical, information.

As noted under the response to comments about DC 7122, 38 U.S.C. 1155 gives the Secretary the authority to revise the rating schedule periodically in accordance with experience. The revisions of these criteria are based on the usual effects of the disease, which is consistent with the basis of revisions throughout the current comprehensive revision of the rating schedule. They are medically, rather than statistically, based, and no statistical studies were done in conjunction with the revision.

Under the previous schedule, there were a variety of methods used to evaluate vascular diseases affecting the extremities, particularly when more than one extremity was affected. For example, the criteria for thrombophlebitis (DC 7121) applied to a single extremity, and if other extremities were affected, they were separately evaluated. For varicose veins (DC 7120), the criteria for a 10-percent evaluation applied to either unilateral or bilateral involvement; but at other evaluation levels, different percentages were assigned for unilateral and bilateral involvement, with no direction for evaluation if one extremity were more severely affected than the other. The criteria for intermittent claudication (DC 7116) applied to a single extremity; determining the evaluation for multiple

extremities required application of a complex set of rules (contained in a note following DC 7117) that sometimes produced an evaluation for involvement of multiple extremities no higher than that for involvement of a single extremity. We proposed no substantive change in either the methods of evaluating these conditions or in the percentage levels.

One commenter questioned why the percentage evaluations and the method of determining the evaluation when more than one extremity is affected differ for arterial and venous diseases. He suggested that we use 20-, 40,-and 60-percent levels for both peripheral arterial diseases (DCs 7114 through 7117), and venous diseases (DCs 7120 and 7121) instead of the variety of levels proposed, and that we adopt a uniform and simple method of determining evaluations when more than one extremity is involved, such as adding ten percent for each additional extremity involved.

We proposed evaluations levels of 20, 40, 60, and 100 percent for DCs 7114, 7115, and 7117, and we have kept those levels in this rule, with the addition of a 10-percent level for DC 7117. (We removed DC 7116, "intermittent claudication," which was in the previous schedule, because it was a symptom of disease rather than a disease.) In response to the comment, we have further revised DCs 7120 (varicose veins) and 7121 (post-phlebitic syndrome of any etiology) to provide percentage evaluation levels of 10, 20, 40, 60, and 100 percent. In addition, we have revised the method of evaluating DCs 7114 (arteriosclerosis obliterans), 7115 (thromboangiitis obliterans), and 7120 (varicose veins) so that the criteria apply to a single extremity, as the criteria for DC 7121 do. If the paired extremity is also affected, the evaluation for each extremity will be separately determined and combined using the combined ratings table (see 38 CFR 4.25) and the bilateral factor (see 38 CFR 4.26) when applicable. Section 4.26 also provides instructions on applying the bilateral factor when there is involvement of upper and lower extremities. While we have made the percentage levels similar, the signs, symptoms, and effects of venous and arterial diseases differ greatly and, therefore, require different evaluation criteria.

In order to adopt the more consistent method of separately evaluating each extremity affected by vascular disease and to assure that venous conditions with similar findings receive consistent evaluations, further revisions of the evaluation criteria for varicose veins

(DC 7120) and post-phlebitic syndrome of any etiology (DC 7121) were required.

Varicose veins are ordinarily asymptomatic or mildly symptomatic, but may produce prolonged venous insufficiency and progress to thrombophlebitis and postphlebitic syndrome. Signs of venous insufficiency, such as edema, stasis pigmentation, ulceration, eczema, and induration, and symptoms such as aching and fatigue, are the major disabling effects of varicose veins. The size, location, extent, etc., of varicose veins do not correlate with symptoms (Merck, 590), and we have removed those criteria as factors in evaluation. The presence or absence of impairment of the deep circulation is more an indicator of the feasibility of surgical repair than of functional impairment, and we have, therefore, removed references to the deep circulation from the evaluation criteria. We have replaced these criteria with criteria based on symptoms (such as aching and fatigue after prolonged standing or walking) or objective physical findings (such as edema, stasis pigmentation, eczema, or ulceration).

The effects of chronic venous insufficiency are the same, whether from varicosities, thrombophlebitis, or some other cause. The postphlebitic syndrome may itself lead to the development of varicosities because of chronic venous insufficiency (Cecil, 363-7). Therefore, the possible manifestations and disabling effects of varicose veins and postphlebitic syndrome are very similar, and we have used the same criteria to evaluate both conditions, with evaluation levels of 0. 10, 20, 40, 60, and 100 percent for involvement of a single extremity, and the same method of evaluation for multiple extremity involvement as that used in arterial vascular disease of the extremities.

We added under DC 7120: "With the following findings attributed to the effects of varicose veins," and under DC 7121: "With the following findings attributed to venous disease" in order to assure that the examiner has determined that the abnormal findings are attributed to venous disease.

One commenter suggested that we clarify how to assign bilateral evaluations for frozen feet (DC 7122) and varicose veins (DC 7120) when one extremity is more severely affected than the other.

The changes described above that we have made in the evaluation criteria, evaluation percentages, and method of determining an evaluation for multiple extremity involvement will allow accurate and consistent evaluations

when more than one extremity is affected by varicose veins, but to different degrees. We have made similar changes in the method of evaluating cold injury, DC 7122, in order to assure accurate and consistent evaluations when there is multiple extremity involvement, and this is further discussed below.

We proposed no change in the previous evaluation criteria for frozen feet (DC 7122). One commenter suggested that we expand the criteria to include cold injuries to the hands, face, and ears; another suggested that higher ratings may be warranted for loss of use of multiple fingers or one or both hands.

We have revised the title of DC 7122 from "frozen feet, residuals of" to "cold injury, residuals of" to indicate that it may be used to evaluate any cold injury. Because cold injury produces similar tissue changes wherever it occurs, a single diagnostic code and set of evaluation criteria are adequate; we have, however, revised the criteria to more accurately reflect the range of effects that cold injury may produce, such as arthralgia, tissue loss, nail abnormalities, and color changes. We have also deleted the bilateral evaluations contained in the prior schedule in favor of evaluating each affected part separately and combining them for the overall evaluation for cold injury, a change which is similar to changes we have made in the method of evaluating peripheral arterial and venous diseases of the extremities. In the case of paired extremities, the evaluations will be combined, if appropriate, in accordance with §§ 4.25 and 4.26 (as described in Note (2), added following DC 7122).

The proposed note following DC 7122 directed that higher ratings could be assigned, if warranted, because of loss of toes, by reference to amputation ratings. We have edited this Note (1) for clarity and added a statement about the evaluation of complications such as peripheral neuropathy or squamous cell carcinoma of the skin at the site of a scar.

One commenter requested that we include neurologic symptoms associated with exposure to low or subfreezing temperatures in the evaluation criteria for DC 7122, cold injuries.

In response to this suggestion, we have added numbness or locally impaired sensation, which are neurologic symptoms, to the evaluation criteria.

One individual suggested that cold injuries of the hands are generally more disabling than those of the lower extremities.

The severity of cold injuries to various parts of the body depends on such factors as the extent and duration of exposure, more than on the particular part affected. We have provided evaluation criteria that, applied with the notes regarding amputations and complications, are flexible enough to cover a broad range of severity and allow evaluation of any extent of tissue damage from cold injury to any body part, so we have not adopted any changes based on this comment.

The current schedule provides six months of convalescence evaluation for soft tissue sarcoma of vascular origin (DC 7123). We proposed that a total evaluation be assigned indefinitely, with a mandatory VA examination to be conducted six months following the completion of therapy. One commenter recommended that we allow one year of convalescence evaluation.

We believe that an examination six months following the cessation of treatment affords sufficient time for convalescence and stabilization of residuals, particularly since the rule requires only an examination, not a reduction, at that time. In our judgment, this method of determining the length of the total evaluation is both fairer and more accurate than assigning a total evaluation for a specified length of time, since the evaluation will be based on actual residual disability as documented by the examination, and the veteran will receive advance notice of any change and have the opportunity to submit additional evidence showing that the change is not warranted.

Two commenters requested that VA provide a zero-percent evaluation for all diagnostic codes.

On October 6, 1993, VA revised its regulation addressing the issue zero-percent evaluations (38 CFR 4.31) to authorize assignment of a zero-percent evaluation for any disability in the rating schedule when minimum requirements for a compensable evaluation are not met. In general, that regulatory provision precludes the need for zero-percent evaluation criteria.

On further review, we have revised the title of DC 7121 from "phlebitis or thrombophlebitis" to "post-phlebitic syndrome of any etiology" because both superficial and deep acute thrombophlebitis are transient conditions, but it is the chronic form of thrombophlebitis with venous insufficiency, known as "postphlebitic leg," "postphlebitic sequelae of chronic venous insufficiency," "postphlebitic syndrome," or "stasis syndrome," that may follow thrombophlebitis. This is not a substantive change.

For the sake of clarity, we have made nonsubstantive changes in the notes under ventricular arrhythmias (DC 7011), heart valve replacement (DC 7016), cardiac transplantation (DC 7019), aortic aneurysm (DC 7110), aneurysm, any large artery (DC 7111), and soft tissue sarcoma (DC 7123).

VA appreciates the comments submitted in response to the proposed rule, which is now adopted with the amendments noted above.

The Secretary hereby certifies that this regulatory amendment will not have a significant economic impact on a substantial number of small entities as they are defined in the Regulatory Flexibility Act (RFA), 5 U.S.C. 601-612. The reason for this certification is that this amendment would not directly affect any small entities. Only VA beneficiaries could be directly affected. Therefore, pursuant to 5 U.S.C. 605(b),

this amendment is exempt from the initial and final regulatory flexibility analysis requirements of sections 603 and 604.

This regulatory amendment has been reviewed by the Office of Management and Budget under the provisions of Executive Order 12866, Regulatory Planning and Review, dated September 30, 1993.

The Catalog of Federal Domestic Assistance program numbers are 64.104 and 64.109.

## List of Subjects in 38 CFR Part 4

Disability benefits, Individuals with disabilities, Pensions, Veterans.

Approved: August 7, 1997.

## Hershel W. Gober,

Acting Secretary of Veterans Affairs.

For the reasons set out in the preamble, 38 CFR part 4, subpart B, is amended as set forth below:

# PART 4—SCHEDULE FOR RATING **DISABILITIES**

1. The authority citation for part 4 continues to read as follows:

Authority: 38 U.S.C. 1155, unless otherwise noted.

# Subpart B—Disability Ratings

## §§ 4.100 through 4.102 [Removed and Reserved1

- 2. Sections 4.100, 4.101, 4.102 are removed and reserved.
- 3. Section 4.104 is revised to read as follows:

§ 4.104 Schedule of ratings cardiovascular system.

#### Diseases of the Heart

Note (1): Evaluate cor pulmonale, which is a form of secondary heart disease, as part of the pulmonary condition that causes it. Note (2): One MET (metabolic equivalent) is the energy cost of standing quietly at rest and represents an oxygen uptake of 3.5 milliliters per kilogram of body weight per minute. When the level of METs at which dyspnea, fatigue, angina, dizziness, or syncope develops is required for evaluation, and a laboratory determination of METs by exercise testing cannot be done for medical reasons, an estimation by a medical examiner of the level of activity (expressed in METs and supported by specific examples, such as slow stair climbing or shoveling snow) that results in dyspnea, fatigue, angina, dizziness, or syncope may be used.

	Rating
7000 Valvular heart disease (including rheumatic heart disease):  During active infection with valvular heart damage and for three months following cessation of therapy for the active infection	100
Thereafter, with valvular heart disease (documented by findings on physical examination and either echocardiogram, Doppler echocardiogram, or cardiac catheterization) resulting in:	
Chronic congestive heart failure, or; workload of 3 METs or less results in dyspnea, fatigue, angina, dizziness, or syncope, or; left ventricular dysfunction with an ejection fraction of less than 30 percent	100
than 5 METs results in dyspnea, fatigue, angina, dizziness, or syncope, or; left ventricular dysfunction with an ejection fraction of 30 to 50 percent	60
Workload of greater than 5 METs but not greater than 7 METs results in dyspnea, fatigue, angina, dizziness, or syncope, or; evidence of cardiac hypertrophy or dilatation on electro-cardiogram, echocardiogram, or X-ray	30
Workload of greater than 7 METs but not greater than 10 METs results in dyspnea, fatigue, angina, dizziness, or syncope, or; continuous medication required	10
7001 Endocarditis: For three months following cessation of therapy for active infection with cardiac involvement	100
Thereafter, with endocarditis (documented by findings on physical examination and either echocardiogram, Doppler echocardiogram, or cardiac catheterization) resulting in:	100
Chronic congestive heart failure, or; workload of 3 METs or less results in dyspnea, fatigue, angina, dizziness, or syncope, or; left ventricular dysfunction with an ejection fraction of less than 30 percent	100
More than one episode of acute congestive heart failure in the past year, or; workload of greater than 3 METs but not greater than 5 METs results in dyspnea, fatigue, angina, dizziness, or syncope, or; left ventricular dysfunction with an ejection fraction of 30 to 50 percent	60
Workload of greater than 5 METs but not greater than 7 METs results in dyspnea, fatigue, angina, dizziness, or syncope, or; evidence of cardiac hypertrophy or dilatation on electrocardiogram, echocardiogram, or X-ray	30
Workload of greater than 7 METs but not greater than 10 METs results in dyspnea, fatigue, angina, dizziness, or syncope, or; continuous medication required	10
For three months following cessation of therapy for active infection with cardiac involvement	100
Chronic congestive heart failure, or; workload of 3 METs or less results in dyspnea, fatigue, angina, dizziness, or syncope, or; left ventricular dysfunction with an ejection fraction of less than 30 percent.	100
More than one episode of acute congestive heart failure in the past year, or; workload of greater than 3 METs but not greater than 5 METs results in dyspnea, fatigue, angina, dizziness, or syncope, or; left ventricular dysfunction with an ejection fraction of 30 to 50 percent	60
Workload of greater than 5 METs but not greater than 7 METs results in dyspnea, fatigue, angina, dizziness, or syncope, or; evidence of cardiac hypertrophy or dilatation on electro-cardiogram, echocardiogram, or X-ray	30
Workload of greater than 7 METs but not greater than 10 METs results in dyspnea, fatigue, angina, dizziness, or syncope, or; continuous medication required	10

	Rating
003 Pericardial adhesions:	
Chronic congestive heart failure, or; workload of 3 METs or less results in dyspnea, fatigue, angina, dizziness, or syncope, or; left ventricular dysfunction with an ejection fraction of less than 30 percent	10
than 5 METs results in dyspnea, fatigue, angina, dizziness, or syncope, or; left ventricular dysfunction with an ejection fraction of 30 to 50 percent	(
Workload of greater than 5 METs but not greater than 7 METs results in dyspnea, fatigue, angina, dizziness, or syncope, or; evidence of cardiac hypertrophy or dilatation on electro-cardiogram, echocardiogram, or X-ray	;
Workload of greater than 7 METs but not greater than 10 METs results in dyspnea, fatigue, angina, dizziness, or syncope, or; continuous medication required	
Chronic congestive heart failure, or; workload of 3 METs or less results in dyspnea, fatigue, angina, dizziness, or syncope, or; left ventricular dysfunction with an ejection fraction of less than 30 percent	10
More than one episode of acute congestive heart failure in the past year, or; workload of greater than 3 METs but not greater than 5 METs results in dyspnea, fatigue, angina, dizziness, or syncope, or; left ventricular dysfunction with an ejection fraction of 30 to 50 percent	
Workload of greater than 5 METs but not greater than 7 METs results in dyspnea, fatigue, angina, dizziness, or syncope, or; evidence of cardiac hypertrophy or dilatation on electrocardiogram, echocardiogram, or X-ray	
continuous medication required	
ote: Evaluate syphilitic aortic aneurysms under DC 7110 (aortic aneurysm).  O05 Arteriosclerotic heart disease (Coronary artery disease):	
With documented coronary artery disease resulting in:  Chronic congestive heart failure, or; workload of 3 METs or less results in dyspnea, fatigue, angina, dizziness, or syncope, or; left ventricular dysfunction with an ejection fraction of less than 30 percent	1
More than one episode of acute congestive heart failure in the past year, or; workload of greater than 3 METs but not greater than 5 METs results in dyspnea, fatigue, angina, dizziness, or syncope, or; left ventricular dysfunction with an ejection frac-	'
tion of 30 to 50 percent	
evidence of cardiac hypertrophy or dilatation on electrocardiogram, echocardiogram, or X-ray	
ote: If nonservice-connected arteriosclerotic heart disease is superimposed on service-connected valvular or other non-arteriosclerotic heart disease, request a medical opinion as to which condition is causing the current signs and symptoms.	
006 Myocardial infarction:  During and for three months following myocardial infarction, documented by laboratory tests  Thereafter:	1
With history of documented myocardial infarction, resulting in:  Chronic congestive heart failure, or; workload of 3 METs or less results in dyspnea, fatigue, angina, dizziness, or syncope, or; left ventricular dysfunction with an ejection fraction of less than 30 percent	1
More than one episode of acute congestive heart failure in the past year, or; workload of greater than 3 METs but not greater than 5 METs results in dyspnea, fatigue, angina, dizziness, or syncope, or; left ventricular dysfunction with an ejection frac-	
tion of 30 to 50 percent	
Workload of greater than 7 METs but not greater than 10 METs results in dyspnea, fatigue, angina, dizziness, or syncope, or; continuous medication required	
07 Hypertensive heart disease:  Chronic congestive heart failure, or; workload of 3 METs or less results in dyspnea, fatigue, angina, dizziness, or syncope, or; left ventricular dysfunction with an ejection fraction of less than 30 percent	
More than one episode of acute congestive heart failure in the past year, or; workload of greater than 3 METs but not greater than 5 METs results in dyspnea, fatigue, angina, dizziness, or syncope, or; left ventricular dysfunction with an ejection frac-	
tion of 30 to 50 percent	
evidence of cardiac hypertrophy or dilatation on electrocardiogram, echocardiogram, or X-ray	
Ontificuous friedication required  8 Hyperthyroid heart disease:  Include as part of the overall evaluation for hyperthyroidism under DC 7900. However, when atrial fibrillation is present, hyperthyroidism may be evaluated either under DC 7900 or under DC 7010 (supraventricular arrhythmia), whichever results	
in a higher evaluation.  10 Supraventricular arrhythmias:	
Paroxysmal atrial fibrillation or other supraventricular tachycardia, with more than four episodes per year documented by ECG or Holter monitor	
Permanent atrial fibrillation (lone atrial fibrillation), or; one to four episodes per year of paroxysmal atrial fibrillation or other supraventricular tachycardia documented by ECG or Holter monitor	
For indefinite period from date of hospital admission for initial evaluation and medical therapy for a sustained ventricular arrhythmia, or; for indefinite period from date of hospital admission for ventricular aneurysmectomy, or; with an automatic implantable Cardioverter-Defibrillator (AICD) in place	,
Chronic congestive heart failure, or; workload of 3 METs or less results in dyspnea, fatigue, angina, dizziness, or syncope, or; left ventricular dysfunction with an ejection fraction of less than 30 percent	1

	Rating
More than one episode of acute congestive heart failure in the past year, or; workload of greater than 3 METs but not greater than 5 METs results in dyspnea, fatigue, angina, dizziness, or syncope, or; left ventricular dysfunction with an ejection fraction of 30 to 50 percent	
Workload of greater than 5 METs but not greater than 7 METs results in dyspnea, fatigue, angina, dizziness, or syncope, or; evidence of cardiac hypertrophy or dilatation on electrocardiogram, echocardiogram, or X-ray	
continuous medication required	
5 Atrioventricular block:	
Chronic congestive heart failure, or; workload of 3 METs or less results in dyspnea, fatigue, angina, dizziness, or syncope, or; left ventricular dysfunction with an ejection fraction of less than 30 percent	1
tion of 30 to 50 percent	
evidence of cardiac hypertrophy or dilatation on electrocardiogram, echocardiogram, or X-ray	
te: Unusual cases of arrhythmia such as atrioventricular block associated with a supraventricular arrhythmia or pathological radycardia should be submitted to the Director, Compensation and Pension Service. Simple delayed P–R conduction time, in the absence of other evidence of cardiac disease, is not a disability.	
6 Heart valve replacement (prosthesis): For indefinite period following date of hospital admission for valve replacement	1
Chronic congestive heart failure, or; workload of 3 METs or less results in dyspnea, fatigue, angina, dizziness, or syncope, or; left ventricular dysfunction with an ejection fraction of less than 30 percent	
More than one episode of acute congestive heart failure in the past year, or; workload of greater than 3 METs but not greater than 5 METs results in dyspnea, fatigue, angina, dizziness, or syncope, or; left ventricular dysfunction with an ejection fraction of 30 to 50 percent	
Workload of greater than 5 METs but not greater than 7 METs results in dyspnea, fatigue, angina, dizziness, or syncope, or; evidence of cardiac hypertrophy or dilatation on electrocardiogram, echocardiogram, or X-ray	
continuous medication required	
7 Coronary bypass surgery: For three months following hospital admission for surgery	
Thereafter:  Chronic congestive heart failure, or; workload of 3 METs or less results in dyspnea, fatigue, angina, dizziness, or syncope, or; left ventricular dysfunction with an ejection fraction of less than 30 percent	
More than one episode of acute congestive heart failure in the past year, or; workload of greater than 3 METs but not greater than 5 METs results in dyspnea, fatigue, angina, dizziness, or syncope, or; left ventricular dysfunction with an ejection fraction of 30 to 50 percent	
Workload of greater than 5 METs but not greater than 7 METs results in dyspnea, fatigue, angina, dizziness, or syncope, or, evidence of cardiac hypertrophy or dilatation on electrocardiogram, echocardiogram, or X-ray	
Workload greater than 7 METs but not greater than 10 METs results in dyspnea, fatigue, angina, dizziness, or syncope, or; continuous medication required	
For two months following hospital admission for implantation or reimplantation	
Minimum	
9 Cardiac transplantation: For an indefinite period from date of hospital admission for cardiac transplantation	
Chronic congestive heart failure, or; workload of 3 METs or less results in dyspnea, fatigue, angina, dizziness, or syncope, or; left ventricular dysfunction with an ejection fraction of less than 30 percent	
More than one episode of acute congestive heart failure in the past year, or; workload of greater than 3 METs but not greater than 5 METs results in dyspnea, fatigue, angina, dizziness, or syncope, or; left ventricular dysfunction with an ejection fraction of 30 to 50 percent	
Minimum  te: A rating of 100 percent shall be assigned as of the date of hospital admission for cardiac transplantation. One year following discharge, the appropriate disability rating shall be determined by mandatory VA examination. Any change in evaluation	

	Ratir
Chronic congestive heart failure, or; workload of 3 METs or less results in dyspnea, fatigue, angina, dizziness, or syncope, or; left ventricular dysfunction with an ejection fraction of less than 30 percent	
More than one episode of acute congestive heart failure in the past year, or; workload of greater than 3 METs but not greater than 5 METs results in dyspnea, fatigue, angina, dizziness, or syncope, or; left ventricular dysfunction with an ejection frac-	
tion of 30 to 50 percent	
evidence of cardiac hypertrophy or dilatation on electrocardiogram, echocardiogram, or X-ray	
continuous medication requiredseases of the Arteries and Veins	
01 Hypertensive vascular disease (hypertension and isolated systolic hypertension):  Diastolic pressure predominantly 130 or more	
Diastolic pressure predominantly 120 or more Diastolic pressure predominantly 110 or more, or; systolic pressure predominantly 200 or more	
Diastolic pressure predominantly 100 or more, or; systolic pressure predominantly 160 or more, or; minimum evaluation for an individual with a history of diastolic pressure predominantly 100 or more who requires continuous medication for control	
te (1): Hypertension or isolated systolic hypertension must be confirmed by readings taken two or more times on at least three different days. For purposes of this section, the term hypertension means that the diastolic blood pressure is predominantly properties. One of greater, and isolated systolic hypertension means that the systolic blood pressure is predominantly 160mm. or greater with a diastolic blood pressure of less than 90mm.  It (2): Evaluate hypertension due to aortic insufficiency or hyperthyroidism, which is usually the isolated systolic type, as part of the condition causing it rather than by a separate evaluation.	
10 Aortic aneurysm:  If five centimeters or larger in diameter, or; if symptomatic, or; for indefinite period from date of hospital admission for surgical	
correction (including any type of graft insertion)  Precluding exertion	
Evaluate residuals of surgical correction according to organ systems affected.	
<b>te:</b> A rating of 100 percent shall be assigned as of the date of admission for surgical correction. Six months following disharge, the appropriate disability rating shall be determined by mandatory VA examination. Any change in evaluation based upon that or any subsequent examination shall be subject to the provisions of §3.105(e) of this chapter.	
1 Aneurysm, any large artery:  If symptomatic, or; for indefinite period from date of hospital admission for surgical correction  Following surgery:	
Ischemic limb pain at rest, and; either deep ischemic ulcers or ankle/brachial index of 0.4 or less	
Claudication on walking more than 100 yards, and; diminished peripheral pulses or ankle/brachial index of 0.9 or less	
2 Aneurysm, any small artery: Asymptomatic	
te: If symptomatic, evaluate according to body system affected. Following surgery, evaluate residuals under the body system iffected.	
3 Arteriovenous fistula, traumatic: With high output heart failure	
Without heart failure but with enlarged heart, wide pulse pressure, and tachycardia	
Lower extremity	
With edema or stasis dermatitis:  Lower extremity	
Upper extremity	
4 Arteriosclerosis obliterans: Ischemic limb pain at rest, and; either deep ischemic ulcers or ankle/brachial index of 0.4 or less	
ity or ankle/brachial index of 0.5 or less	
te (1): The ankle/brachial index is the ratio of the systolic blood pressure at the ankle (determined by Doppler study) divided by he simultaneous brachial artery systolic blood pressure. The normal index is 1.0 or greater.  te (2): Evaluate residuals of aortic and large arterial bypass surgery or arterial graft as arteriosclerosis obliterans.  te (3): These evaluations are for involvement of a single extremity. If more than one extremity is affected, evaluate each exremity separately and combine (under § 4.25), using the bilateral factor (§ 4.26), if applicable.	

	Rating
7115 Thrombo-angiitis obliterans (Buerger's Disease):     Ischemic limb pain at rest, and; either deep ischemic ulcers or ankle/brachial index of 0.4 or less	100 60 40 20
<ul> <li>Note (1): The ankle/brachial index is the ratio of the systolic blood pressure at the ankle (determined by Doppler study) divided by the simultaneous brachial artery systolic blood pressure. The normal index is 1.0 or greater.</li> <li>Note (2): These evaluations are for involvement of a single extremity. If more than one extremity is affected, evaluate each extremity separately and combine (under § 4.25), using the bilateral factor (§ 4.26), if applicable.</li> <li>7117 Raynaud's syndrome:</li> </ul>	400
With two or more digital ulcers plus autoamputation of one or more digits and history of characteristic attacks	100 60 40 20 10
7118 Angioneurotic edema:  Attacks without laryngeal involvement lasting one to seven days or longer and occurring more than eight times a year, or; attacks with laryngeal involvement of any duration occurring more than twice a year.  Attacks without laryngeal involvement lasting one to seven days and occurring five to eight times a year, or; attacks with laryngeal involvement of any duration occurring once or twice a year.  Attacks without laryngeal involvement lasting one to seven days and occurring two to four times a year.  7119 Erythromelalgia:	40 20 10
Characteristic attacks that occur more than once a day, last an average of more than two hours each, respond poorly to treatment, and that restrict most routine daily activities  Characteristic attacks that occur more than once a day, last an average of more than two hours each, and respond poorly to treatment, but that do not restrict most routine daily activities  Characteristic attacks that occur daily or more often but that respond to treatment  Characteristic attacks that occur less than daily but at least three times a week and that respond to treatment	100 60 30 10
<b>Note:</b> For purposes of this section, a characteristic attack of erythromelalgia consists of burning pain in the hands, feet, or both, usually bilateral and symmetrical, with increased skin temperature and redness, occurring at warm ambient temperatures. These evaluations are for the disease as a whole, regardless of the number of extremities involved.  7120 Varicose veins:	
With the following findings attributed to the effects of varicose veins: Massive board-like edema with constant pain at rest  Persistent edema or subcutaneous induration, stasis pigmentation or eczema, and persistent ulceration  Persistent edema and stasis pigmentation or eczema, with or without intermittent ulceration  Persistent edema, incompletely relieved by elevation of extremity, with or without beginning stasis pigmentation or eczema  Intermittent edema of extremity or aching and fatigue in leg after prolonged standing or walking, with symptoms relieved by elevation of extremity or compression hosiery	100 60 40 20 10 0
Note: These evaluations are for involvement of a single extremity. If more than one extremity is involved, evaluate each extremity separately and combine (under § 4.25), using the bilateral factor (§ 4.26), if applicable.  7121 Post-phlebitic syndrome of any etiology:	
With the following findings attributed to venous disease:  Massive board-like edema with constant pain at rest	100 60 40 20 10 0
<b>Note:</b> These evaluations are for involvement of a single extremity. If more than one extremity is involved, evaluate each extremity separately and combine (under § 4.25), using the bilateral factor (§ 4.26), if applicable.	
7122 Cold injury residuals:  With pain, numbness, cold sensitivity, or arthralgia plus two or more of the following: tissue loss, nail abnormalities, color changes, locally impaired sensation, hyperhidrosis, X-ray abnormalities (osteoporosis, subarticular punched out lesions, or osteoarthritis) of affected parts  With pain, numbness, cold sensitivity, or arthralgia plus tissue loss, nail abnormalities, color changes, locally impaired sensation, hyperhidrosis, or X-ray abnormalities (osteoporosis, subarticular punched out lesions, or osteoarthritis) of affected	30
parts	20 10
Note (1): Amputations of fingers or toes, and complications such as squamous cell carcinoma at the site of a cold injury scar or peripheral neuropathy should be separately evaluated under other diagnostic codes.  Note (2): Evaluate each affected part (hand, foot, ear, nose) separately and combine the ratings, if appropriate, in accordance with §§ 4.25 and 4.26.	

	Rating
7123 Soft tissue sarcoma (of vascular origin)	100

(Authority: 38 U.S.C. 1155)

[FR Doc. 97–32413 Filed 12–10–97; 8:45 am] BILLING CODE 8320–01–P

# ENVIRONMENTAL PROTECTION AGENCY

#### 40 CFR Part 52

[FRL-5931-8]

Technical Amendments to Air Quality Implementation Plan for Connecticut; Correction

**AGENCY:** Environmental Protection Agency (EPA).

**ACTION:** Direct final rule; correction.

SUMMARY: The Environmental Protection Agency published in the **Federal Register** of Monday, October 6, 1997, a direct final rule concerning the approval of regulations which define reasonably available control technology for sources of nitrogen oxides in Connecticut.

Inadvertently, the wrong city address was attributed to two facilities affected by the regulations. Also in that document, the table of EPA approved regulations was mislabelled.

**DATES:** Effective on December 11, 1997. FOR FURTHER INFORMATION CONTACT: Steven A. Rapp at (617) 565–2773, or Email at

Rapp.Steve@EPAMAIL.EPA.GOV.

SUPPLEMENTARY INFORMATION: The EPA
published a direct final rule in the
October 6, 1997 Federal Register (62 FR
52016) adding § 52.370(c)(72) and
§ 52.385 but inadvertently included the
wrong city address for two facilities
listed under § 52.370(c)(72)(i) and
mislabelled the table of EPA approved
regulations under § 52.385. This
correction changes the address for the
two entries as well as the label of the
table.

In FR Doc. 97–26434 published on October 6, 1997, (62 FR 52016) make the following corrections:

#### §52.370 [Corrected]

- 1. On page 52020, in the third column in  $\S 52.370(c)(72)(i)(B)$ , in the fourth line, "New Haven \* \* \*" should read "Bridgeport \* \* \*",
- 2. On page 52021, in the third column in § 52.370(c)(72)(i)(K), in the sixth line, "New Haven" should read "Bridgeport",

# §52.385 [Corrected]

- 3. On pages 52022 through 52029, the heading for the table "Table 52.384— EPA-Approved Regulations" should read "Table 52.385—EPA-Approved Regulations", and
- 4. On page 52027, the table in § 52.385, under Connecticut state citation 22a-174–22, Control of nitrogen oxide emissions, the subentries that begin with the dates "5/18/95" and "2/14/96" are corrected to read as follows:

## TABLE 52.385—EPA-APPROVED REGULATIONS

Connecticut State Citation	tion I Itle/subject Date add	Dates		Fadaral Dan		
		Date adopted by State	Date approve by EPA	Date approved lister Citation	Comments/description	
	*	*	* *	*	* *	
* * *	* * *	5/18/95	10/6/97	* * *	. (c) 72	Case-specific trading order for United Illuminating's Station #3, in Bridgeport.
	*	*	* *	*	* *	
* * *	* * *	2/14/96	10/6/97	* * *	. (c) 72	Case-specific trading order for United Illuminating's Station #4, in Bridgeport.
	*	*	* *	*	* *	

Under Executive Order 12866 (58 FR 51735, October 4, 1993), this action is not a "significant regulatory action" and, is therefore not subject to review by the Office of Management and Budget. In addition, this action does not impose any enforceable duty or contain any unfunded mandate as described in the Unfunded Mandates Reform Act of 1995 (Pub. L. 104–4), or require prior consultation with State officials as specified by Executive Order 12875 (58

FR 58093, October 28, 1993), or involve special consideration of environmental justice related issues as required by Executive Order 12898 (59 FR 7629, February 16, 1994).

Because this action is not subject to notice-and-comment requirements under the Administrative Procedure Act or any other statute, it is not subject to the provisions of the Regulatory Flexibility Act (5 U.S.C. 601 *et seq.*).

Under 5 U.S.C. 801(a)(1)(A) as added by the Small Business Regulatory Enforcement Fairness Act of 1996, EPA submitted a report containing this rule and other required information to the U.S. Senate, the U.S. House of Representatives and the Comptroller General of the General Accounting Office prior to publication of this rule in today's **Federal Register**. This rule is not a "major rule" as defined by 5 U.S.C. 804(2).