

- e. Revising the entry for “Prostate gland” (diagnostic code 7527);
- f. Under the heading “Renal,” adding in alphabetical order an entry for “Disease caused by viral infection such as HIV, Hepatitis B, and Hepatitis C” (diagnostic code 7544);
- g. Under the heading “Renal,” removing the entry for “Involvement in systemic diseases” (diagnostic code

- 7541), and adding an entry for “Involvement in diabetes mellitus type I or II” in its place;
- h. Removing the entry for “Ureterolithiasis” (diagnostic code 7510);
- i. Removing the entry for “Epididymo-orchitis” (diagnostic code 7525);
- j. Adding in alphabetical order an entry for “Prostatitis, urethritis,

- epididymitis, orchitis (unilateral or bilateral), chronic only” (diagnostic code 7525); and
- k. Adding in alphabetical order an entry for “Varicocele/Hydrocele” (diagnostic code 7543).

The additions and revisions read as follows:

Appendix C to Part 4—Alphabetical Index of Disabilities

| | Diagnostic code No. |
|---|---------------------|
| Bladder: | |
| Calculus in | 7515 |
| Diverticulum of | 7545 |
| Fistula in | 7516 |
| Injury of | 7517 |
| Neurogenic | 7542 |
| Interstitial nephritis, including gouty nephropathy, disorders of calcium metabolism | 7537 |
| Nephrolithiasis/Ureterolithiasis/Nephrocalcinosis | 7508 |
| Penis: | |
| Erectile dysfunction | 7522 |
| Removal of glans | 7521 |
| Removal of half or more | 7520 |
| Prostate gland injuries, infections, hypertrophy, postoperative residuals, bladder outlet obstruction | 7527 |
| Prostatitis, urethritis, epididymitis, orchitis (unilateral or bilateral), chronic only | 7525 |
| Renal: | |
| Amyloid disease | 7539 |
| Disease, chronic | 7530 |
| Disease caused by viral infection such as HIV, Hepatitis B, and Hepatitis C | 7544 |
| Involvement in diabetes mellitus type I or II | 7541 |
| Tubular disorders | 7532 |
| Varicocele/Hydrocele | 7543 |

[FR Doc. 2021–19997 Filed 9–29–21; 8:45 am]

BILLING CODE 8320–01–P

DEPARTMENT OF VETERANS AFFAIRS

38 CFR Part 4

RIN 2900–AQ67

Schedule for Rating Disabilities: The Cardiovascular System

AGENCY: Department of Veterans Affairs.

ACTION: Final rule.

SUMMARY: This document amends the Department of Veterans Affairs (VA) Schedule for Rating Disabilities

(“VASRD” or “rating schedule”) by revising the portion of the rating schedule that addresses the cardiovascular system. The purpose of this revision is to ensure that this portion of the rating schedule uses current medical terminology and provides detailed and updated criteria for the evaluation of cardiovascular disabilities by incorporating medical advances that have occurred since the last review.

DATES: This rule is effective November 14, 2021.

FOR FURTHER INFORMATION CONTACT: Gary Reynolds, M.D., Regulations Staff (211D), Compensation Service, Veterans Benefits Administration, Department of

Veterans Affairs, 810 Vermont Avenue NW, Washington, DC 20420, (202) 461–9700. (This is not a toll-free number.)

SUPPLEMENTARY INFORMATION: VA published a proposed rule in the **Federal Register** at 84 FR 37594 on August 1, 2019, to amend the regulations involving the cardiovascular system. VA provided a 60-day public comment period and invited interested persons to submit written comments, suggestions, or objections on or before September 30, 2019. VA received comments from National Organization of Veterans’ Advocates (NOVA), Military Disability Made Easy (two comments), Veterans of Foreign Wars (VFW), National Veterans Legal Services

Program (NVLSP), and four individuals. VA has made limited changes based on these comments, as discussed below.

Section-by-Section Discussion of Part 4 of Title 38 of the CFR

General Discussion:

One commenter requested clarification for the meaning of “month” and asked that the number of days that a “month” represents be provided. VA clarifies that the term “month” is used to describe the procession from one month to the next on the Gregorian calendar. It does not denote a specific number of days since the number of days in a month vary throughout the year. However, for the purpose of understanding how long a temporary evaluation will be effective based on “months,” VA clarifies that temporary evaluations remain effective until the last day of the month in which the temporary evaluation ends. As an example, under Diagnostic Code 7000, VA will assign a 100-percent evaluation during active infection with valvular heart disease and for three months following the cessation of treatment for the active infection. If treatment ceased on January 5, 2020, the temporary evaluation would end after three months (on approximately April 5, 2020) and would remain effective until the end of the current month, April 30, 2020.

§ 4.100, Application of the evaluation criteria for diagnostic codes 7000–7007, 7011, and 7015:

Three issues within this section were highlighted by multiple commenters. One commenter asked why it was necessary to wait for significant debilitation before compensation is awarded when using disease classification as a basis for compensation. VA notes current law requires that VA adopt and apply “a schedule of ratings of reductions in earning capacity from specific injuries or combination of injuries” that are based upon the average impairments of earning capacity from injuries or disabilities related to military service in civil occupations. See 38 U.S.C. 1155. Second, disease classification is not a consistently accurate predictor of either disability or loss in earnings capacity. VA makes no changes based on this comment.

Another commenter asked what are the alternatives that can be used instead of metabolic equivalent of task (METs) when METs testing is contraindicated for diagnostic codes using the General Rating Formula for Diseases of the Heart. VA notes that under certain evaluation criteria within the General Rating Formula for Diseases of the

Heart, medication and selected echocardiogram findings may be used. In addition, Note 2 of the General Rating Formula, as proposed, states that examiners are permitted to estimate METs level based on an interview when testing cannot be conducted. VA makes no changes based on this comment.

Three commenters objected to the removal of congestive heart failure (CHF) and left ventricular ejection fraction (LVEF). One commenter stated that instead of removing CHF and LVEF, VA should require medical examiners to provide a full picture of the heart disability, including explaining if CHF or LVEF is not caused by the heart condition, in accordance with § 4.10. Another commenter questioned the rationale for removing CHF and LVEF because VA argued for including those metrics in a 2002 proposed rule. The commenter also stated that removing these metrics would be overly restrictive and burdensome to veterans with limited access to care. The last commenter objected to the removal of CHF and LVEF and cited a 2017 medical journal article which concluded that LVEF was the best metric for functional and structural cardiac remodeling. VA appreciates these comments but continues with the proposed changes without modification for the following reasons.

First, under certain evaluation criteria within the General Rating Formula for Diseases of the Heart, medication and selected echocardiogram findings may be used instead of METs. Second, it should be noted that § 4.10 requires in part “full description of the effects of disability upon the person’s ordinary activity.” CHF is actually a medical diagnosis, and does not, in and of itself, describe disability. Additionally, “ejection fraction (LVEF) is poorly related to exercise tolerance (which is measured in METS).” Topol, E.J., “Textbook of Cardiovascular Medicine, 3rd Edition, pg. 1349 (2007). MET, on the other hand, is a metric used to describe functional capacity or exercise tolerance of an individual performing activities, for some of which the difficulty with or inability to perform has a profoundly negative effect on earnings capacity. As VA explained in the proposed rule, LVEF and CHF are unreliable tools for assessing functional limitation and disability due to cardiac disease because they may be influenced by numerous factors not directly associated with the underlying cardiovascular disease. 84 FR at 37595. Third, on August 22, 2002, VA published proposed changes to § 4.100 that, while providing a basis to include consideration of LVEF and CHF in the

cardiac disability evaluation, also clarified that VA does not require all three tests (*i.e.*, METs, CHF, and LVEF) in order to evaluate a cardiac disability. See 67 FR 54394. At the time, VA stated that “[o]ur intent in providing alternative criteria was to avoid the need for a veteran to undergo additional tests that might be invasive, risky, costly, or time-consuming, if one or more objective and reliable tests or findings suitable for evaluation purposes are already of record.” *Id.* at 54395. These proposed changes were finalized in 2006. See 71 FR 52457. VA does not consider removing CHF and LVEF as inconsistent with its stated intention in 2002. VA’s intent has consistently been to avoid, whenever possible, invasive, risky, costly, or time-consuming tests when ascertaining level of impairment and METs testing is the least invasive procedure compared to CHF and LVEF testing. Further, although one commenter raised the issue of local accessibility of certain testing, VA notes that METs can be obtained via provider interview, observation, or actual physical testing.

Finally, a commenter who objected to the removal of CHF and LEVF also cited a 2017 medical journal article that involves functional and structural phenotyping of failing hearts to better diagnose, treat, and otherwise manage heart failure. The article does not, however, address residual disability leading to loss in earnings capacity, which is the primary focus of the ratings schedule.

§ 4.104, Schedule of ratings-cardiovascular system:

Two commenters raised three issues specific to this section. One commenter agreed with VA’s continued recognition of palpitations and arrhythmias as elements within selected evaluation criteria. VA thanks the commenter for their input. One commenter disagreed with using METs, claiming they are inaccurate within key situations (*e.g.*, normal METs values despite cardiac abnormalities; symptomatic only with activities requiring greater than 10 METs; and METs are inaccurate for sustained activities). Finally, in place of METs, that commenter noted that disease is the limiting factor, and should be both measured as well as classified to determine compensation levels.

VA makes no changes based on the immediately preceding comments for the following reasons. VA disagrees with the commenter’s conclusion that METs are inaccurate in situations involving normal function despite anatomic abnormalities and during sustained activities. Regardless of whether any anatomic/medical/

structural abnormalities exist, if they are not associated with a specific disability or disabilities, then such abnormalities are not a basis for disability compensation. Second, the Compendium of Physical Activities, which is “a coding scheme that classifies specific physical activity . . . by rate of energy expenditure,” <https://pubmed.ncbi.nlm.nih.gov/10993420/>, shows that while the amount of energy expended depends on the duration of the activity, the rate of energy expenditure is unchanged regardless of how long the energy is expended.

Finally, VA notes that the fact that a disease classification system functions well in terms of guiding treatment or predicting prognosis does not necessarily imply it is an adequate tool for rating disabilities. Pursuant to 38 U.S.C. 1155, VA’s rating schedule is intended to reflect reductions in earning capacity from specific injuries or disabilities incurred in or due to military service, so any proposed classification system must fulfill that requirement.

Specific Diagnostic Codes (DCs)

Proposed new DC 7009, bradycardia (bradyarrhythmia), symptomatic, requiring permanent pacemaker implantation and current DC 7018, implantable cardiac pacemakers:

One commenter asked if a 100-percent evaluation for implanted pacemakers could be prolonged if recovery time was greater than one month. VA proposed to add a new DC 7009 for bradycardia requiring permanent pacemaker implantation that would provide a 100-percent evaluation for one month following hospitalization for implantation or re-implantation. Residuals after the following initial month will be evaluated using the General Rating Formula. Aside from total (100 percent) evaluations provided in the rating schedule, VA also provides temporary 100-percent evaluation ratings for any service-connected disability that requires hospitalization longer than 21 days or more or requires at least one month of convalescence for surgery (or immobilization by cast of one major joint or more), if the evidence shows that it is warranted. See 38 CFR 4.29–4.30. Since VA has provisions in place for post-operative or surgical total evaluations for such instances, VA makes no changes based on this comment.

Proposed new DC 7009, bradycardia (bradyarrhythmia), symptomatic, requiring permanent pacemaker implantation and current DCs 7010, supraventricular arrhythmias, 7011,

ventricular arrhythmias (sustained), and 7015, atrioventricular block:

The proposed rule stated that, for conditions under these DCs, “a single evaluation will be assigned under the diagnostic code that reflects the predominant disability picture.” One commenter asked how a “medical professional” could “appeal[] or otherwise alter[]” the diagnostic code to the extent that person disagrees with that instruction. VA clarifies that “predominant disability picture” is a term of art that generally describes the disability that allows for the highest compensable evaluation. To the extent the commenter means to ask whether an examiner can provide additional information beyond what he or she believes is contemplated by the applicable diagnostic code, the answer is that an examiner should always strive to provide a complete picture of the claimant’s disability, including any salient details, and provide medical reasoning to justify any conclusions drawn, which is consistent with the examiner’s obligations under 38 CFR 4.10. If a veteran is service connected for two of these disabilities, a VA rating specialist will consider the probative value of this report in selecting the disability that warrants the highest evaluation to evaluate both conditions, consistent with the rater’s obligation “to interpret reports of examination in the light of the whole recorded history, reconciling the various reports into a consistent picture so that the current rating may accurately reflect the elements of disability present.” 38 CFR 4.2.

If the claimant or the claimant’s representative believes another service-connected condition is more disabling to the point that it warrants a higher evaluation than the original condition, the claimant or the claimant’s representative may present evidence in support of that argument in whatever posture is most appropriate at the time. For example, the claimant may raise that argument in a notice of disagreement if filed within one year of the rating decision notification letter containing the disputed disability picture assessment, or the claimant may file an increased rating claim if the other service-connected condition has become the prominent disability any time after the initial rating decision becomes final. At that time, if the rating specialist determines the evidence supports the claimant’s argument, VA will assign a new higher evaluation to reflect the appropriate disability picture. VA makes no changes based on this comment.

DC 7010, Supraventricular Arrhythmias:

Four different commenters raised multiple concerns with this DC. Two commenters raised the issue of hospitalizations, one objecting to the use in the revised evaluation criteria and the other asking what level of hospitalization is required to receive an evaluation. VA used the term “hospitalizations” in giving a general description of the evaluation criteria revisions, but the proposed rule goes on to state VA’s actual intent, which was to use specific treatment interventions such as intravenous pharmacologic adjustment, cardioversion, and/or ablation from a provider that are intended to treat acutely disabling symptoms. Hospitalization may or may not be associated with these treatment interventions, so it was excluded as a description within the evaluation criteria. VA regrets any confusion resulting from the use of the word “hospitalizations” in association with this DC and continues with the proposed changes without modification.

Three commenters proposed oral medication be used within evaluation criteria. One commenter proposed adding emergency room (ER) visits to the evaluation criteria. Still another commenter proposed adding vagal maneuvers to the evaluation criteria. VA agrees to incorporate oral medications and vagal maneuvers but declines to revise the evaluation criteria to incorporate ER visits. As previously stated, the evaluation criteria will be based on residual disability from treatment interventions to resolve disabling symptoms. ER visits do not necessarily require intravenous pharmacologic adjustment, cardioversion, or ablation to block or control the condition and any associated disability. When they do, the proposed evaluation criteria can accommodate this situation.

Finally, two commenters stated that the criteria did not account for other symptoms associated with supraventricular tachycardia, specifically extreme fatigue and tachycardia that induces hypotension, shortness of breath, dizziness, and chest pain. VA declines to revise the evaluation criteria to incorporate symptoms of extreme fatigue, hypotension, shortness of breath, dizziness, and chest pain. This DC specifically addresses supraventricular tachycardia; however, if the condition also causes ventricular arrhythmias (*i.e.*, tachycardia and bradycardia), an evaluation can be assigned using DC 7011 under the general rating formula, which considers symptoms of fatigue,

syncope (hypotension), breathlessness, dizziness, and angina (chest pain). VA points to the instruction concerning DCs 7009, 7010, 7011, and 7015, which only allow for a single evaluation for all four DCs based on the one that reflects the pre-dominant disability picture.

DC 7011, Ventricular Arrhythmias (Sustained):

One commenter recommended VA include “discharge from inpatient cardiac rehabilitation” as another event before waiting six months to conduct the mandatory reexamination for a sustained arrhythmia or ventricular aneurysmectomy. This recommendation was made to ensure VA claims processors do not disallow the application of the provisions of § 4.29 in cases where the veteran is receiving cardiac rehabilitation, which the commenter believed to be a mistake.

The 100-percent evaluation under DC 7011, which is assigned for sustained ventricular arrhythmias following discharge from inpatient hospitalization, already contemplates activities the veteran may be subject to after sustained arrhythmia or ventricular aneurysmectomy, such as cardiac rehabilitation. In addition, a 100-percent evaluation under DC 7011 is assigned for an indefinite period and can remain even after the initial six-month mandatory reexamination, if the findings of the VA examination contemplated in the Note to DC 7011 warrant such a determination. Finally, VA confirms that it is appropriate to not apply the provisions of § 4.29 in cases where the veteran is currently receiving a temporary total rating for a disability for which hospitalization was required. Therefore, inpatient cardiac rehabilitation that occurs at any point during the indefinite assignment of a 100-percent rating under this DC cannot also qualify for benefits under the provisions of § 4.29, which provide a temporary total disability rating for a service-connected disability requiring hospital treatment in a VA or VA-approved hospital for a period in excess of 21 days. Therefore, VA makes no changes based on this comment. VA does, however, take this opportunity to clarify that the hospitalization referenced in DC 7011 is intended to only apply to inpatient cardiac hospitalization.

DC 7015, Atrioventricular Block:

One commenter asked if a block can be reclassified between benign or non-benign. The commenter mischaracterizes how an evaluation changes from benign to non-benign, so VA would like to clarify how a veteran receives an evaluation for an atrioventricular block and how that

evaluation changes. An evaluation occurs whenever a veteran submits an electrocardiogram (ECG) with either benign or non-benign atrioventricular block findings. Instead of reclassification, it is during a follow-up examination when the ECG conversion to a non-benign atrioventricular block is identified. It is the submission of that second (non-benign) ECG that changes the evaluation from VA raters. VA makes no changes based on this comment.

DC 7019, Cardiac Transplantation:

One commenter sought clarification about the one-year time periods for rating and the mandatory evaluation. The commenter went on further to assert it did not make sense for VA to stipulate that the 100 percent evaluation under this DC only last for one year starting from the hospital admission but mandate reexamination one year after discharge. VA reiterates that it proposed to replace the phrase “for an indefinite period” concerning the length of the 100 percent evaluation with the phrase “for a minimum of one year.” This means that the 100 percent evaluation can exceed one year depending on the circumstances of the case, including the date of discharge as well as the date of the reexamination. VA makes no changes based on this comment.

DC 7110, Aortic Aneurysm:

Two commenters provided input for this DC. One commenter felt the evaluation criteria were confusing, particularly the criteria for the zero-percent evaluation. The other commenter asked if veterans previously receiving a 60-percent evaluation with an aortic aneurysm that precluded exertion would be evaluated under the proposed 100-percent evaluation.

First, VA clarifies that a veteran previously receiving a 60-percent evaluation with an aortic aneurysm that precluded exertion will now be entitled to a 100-percent evaluation. Second, VA originally proposed to provide a 100-percent evaluation under this DC when the aneurysm size is five centimeters or larger or when the aneurysm is symptomatic (*e.g.*, precludes exertion) and surgical correction was recommended. A zero-percent evaluation would have been assignable if surgery was not recommended and the aneurysm was smaller than five centimeters. Based on the comment, and to provide additional clarity, VA revises the evaluation criteria to specify that a 100-percent evaluation applies when (1) the aneurysm is five centimeters or larger in diameter; (2) the aneurysm is symptomatic; or (3) surgical correction is required. The current note addressing the circumstances triggering mandatory

VA examination will be edited for clarity and will indicate that the 100-percent evaluation period begins on the date the physician recommends surgical correction, as described in the proposed rule.

DC 7120, Varicose Veins:

One commenter noted the proposed criteria under DC 7120 states “evaluate under diagnostic code 7121;” however, DC 7121 was not listed in the proposed rating schedule. VA thanks the commenter for this comment. DC 7121 was not listed in the proposed rule because there is no change to the criteria that currently exists under that DC.

Technical Corrections:

Several technical corrections were made for ease of reading or parity in rating schedule language to the following DCs: 7009, 7010, 7011, 7110, and 7124. These corrections were minor and non-substantive in nature and did not change the meaning or substance of the criteria or notes.

Executive Orders 12866 and 13563

Executive Orders 12866 and 13563 direct agencies to assess the costs and benefits of available regulatory alternatives and, when regulation is necessary, to select regulatory approaches that maximize net benefits (including potential economic, environmental, public health, and safety effects, and other advantages; distributive impacts; and equity). Executive Order 13563 (Improving Regulation and Regulatory Review) emphasizes the importance of quantifying both costs and benefits, reducing costs, harmonizing rules, and promoting flexibility. The Office of Information and Regulatory Affairs has determined that this rule is a significant regulatory action under Executive Order 12866.

The Regulatory Impact Analysis associated with this rulemaking can be found as a supporting document at www.regulations.gov.

Regulatory Flexibility Act

The Secretary hereby certifies that this final rule will not have a significant economic impact on a substantial number of small entities as they are defined in the Regulatory Flexibility Act (5 U.S.C. 601–612). The certification is based on the fact that no small entities or businesses assign evaluations for disability claims. Therefore, pursuant to 5 U.S.C. 605(b), the initial and final regulatory flexibility analysis requirements of 5 U.S.C. 603 and 604 do not apply.

Unfunded Mandates

The Unfunded Mandates Reform Act of 1995 requires, at 2 U.S.C. 1532, that agencies prepare an assessment of anticipated costs and benefits before issuing any rule that may result in the expenditure by State, local, and tribal governments, in the aggregate, or by the private sector, of \$100 million or more (adjusted annually for inflation) in any year. This final rule would have no such effect on State, local, and tribal governments, or on the private sector.

Paperwork Reduction Act

This final rule contains no provisions constituting a collection of information under the Paperwork Reduction Act of 1995 (44 U.S.C. 3501–3521).

Catalog of Federal Domestic Assistance

The Catalog of Federal Domestic Assistance program numbers and titles for this rule are 64.104, Pension for Non-Service-Connected Disability for Veterans; 64.109, Veterans Compensation for Service-Connected Disability; and 64.110, Veterans Dependency and Indemnity Compensation for Service-Connected Death.

Congressional Review Act

Pursuant to the Congressional Review Act (5 U.S.C. 801 *et seq.*), the Office of Information and Regulatory Affairs

designated this rule as not a major rule, as defined by 5 U.S.C. 804(2).

List of Subjects in 38 CFR Part 4

Disability benefits, Pensions, Veterans.

Signing Authority

Denis McDonough, Secretary of Veterans Affairs, approved this document on June 23, 2021, and authorized the undersigned to sign and submit the document to the Office of the Federal Register for publication electronically as an official document of the Department of Veterans Affairs.

Jeffrey M. Martin,

Assistant Director, Office of Regulation Policy & Management, Office of the Secretary, Department of Veterans Affairs.

For the reasons set out in the preamble, VA amends 38 CFR part 4 as follows:

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

■ 2. Amend § 4.100 by revising paragraph (b) and adding an authority at the end of the section to read as follows:

§ 4.100 Application of the evaluation criteria for diagnostic codes 7000–7007, 7011, and 7015–7020.

* * * * *

(b) Even if the requirement for a 10% (based on the need for continuous medication) or 30% (based on the presence of cardiac hypertrophy or dilatation) evaluation is met, METs testing is required in all cases except:

- (1) When there is a medical contraindication.
 - (2) When a 100% evaluation can be assigned on another basis.
- (Authority: 38 U.S.C. 1155)

- 3. Amend § 4.104 by:
 - a. Adding introductory text under the heading “Diseases of the Heart”;
 - b. Revising notes 1 and 2;
 - c. Adding note 3;
 - d. Adding an entry for “General Rating Formula for Diseases of the Heart” after note 3;
 - e. Revising the entries for DCs 7000, 7001, 7002, 7003, 7004, 7005, 7006, 7007, and 7008;
 - f. Adding an entry for DC 7009;
 - g. Revising the entries for DCs 7010, 7011, 7015, 7016, 7017, 7018, 7019, 7020, 7110, 7111, 7113, 7114, 7115, 7117, 7120, and 7122; and
 - h. Adding DC 7124.

The revisions and additions read as follows:

§ 4.104 Schedule of ratings—cardiovascular system.

DISEASES OF THE HEART

[Unless otherwise directed, use this general rating formula to evaluate diseases of the heart.]

| | Rating |
|---|--------|
| 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 breathlessness, 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, a medical examiner may estimate the level of activity (expressed in METs and supported by specific examples, such as slow stair climbing or shoveling snow) that results in those symptoms. | |
| Note (3): For this general formula, heart failure symptoms include, but are not limited to, breathlessness, fatigue, angina, dizziness, arrhythmia, palpitations, or syncope. | |
| GENERAL RATING FORMULA FOR DISEASES OF THE HEART: | |
| Workload of 3.0 METs or less results in heart failure symptoms | 100 |
| Workload of 3.1–5.0 METs results in heart failure symptoms | 60 |
| Workload of 5.1–7.0 METs results in heart failure symptoms; or evidence of cardiac hypertrophy or dilatation confirmed by echocardiogram or equivalent (<i>e.g.</i> , multigated acquisition scan or magnetic resonance imaging) | 30 |
| Workload of 7.1–10.0 METs results in heart failure symptoms; or continuous medication required for control | 10 |
| 7000 Valvular heart disease (including rheumatic heart disease), | |
| 7001 Endocarditis, or | |
| 7002 Pericarditis: | |
| During active infection with cardiac involvement and for three months following cessation of therapy for the active infection | 100 |
| Thereafter, with diagnosis confirmed by findings on physical examination and either echocardiogram, Doppler echocardiogram, or cardiac catheterization, use the General Rating Formula. | |
| 7003 Pericardial adhesions. | |
| 7004 Syphilitic heart disease: | |
| Note: Evaluate syphilitic aortic aneurysms under DC 7110 (Aortic aneurysm: Ascending, thoracic, abdominal). | |
| 7005 Arteriosclerotic heart disease (coronary artery disease). | |
| Note: If non-service-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. | |
| 7006 Myocardial infarction: | |
| During and for three months following myocardial infarction, confirmed by laboratory tests | 100 |

DISEASES OF THE HEART—Continued

[Unless otherwise directed, use this general rating formula to evaluate diseases of the heart.]

| | Rating |
|--|--------|
| Thereafter, use the General Rating Formula. | |
| 7007 Hypertensive heart disease. | |
| 7008 Hyperthyroid heart disease: | |
| Rate under the appropriate cardiovascular diagnostic code, depending on particular findings. | |
| For DCs 7009, 7010, 7011, and 7015, a single evaluation will be assigned under the diagnostic code that reflects the predominant disability picture. | |
| 7009 Bradycardia (Bradycardia), symptomatic, requiring permanent pacemaker implantation: | |
| For one month following hospital discharge for implantation or re-implantation | 100 |
| Thereafter, use the General Rating Formula. | |
| Note (1): Bradycardia (bradycardia) refers to conduction abnormalities that produce a heart rate less than 60 beats/min. There are five general classes of bradycardia: Sinus bradycardia, including sinoatrial block; atrioventricular (AV) junctional (nodal) escape rhythm; AV heart block (second or third degree) or AV dissociation; atrial fibrillation or flutter with a slow ventricular response; and, idioventricular escape rhythm. | |
| Note (2): Asymptomatic bradycardia (bradycardia) is a medical finding only. It is not a disability subject to compensation. | |
| 7010 Supraventricular tachycardia: | |
| Confirmed by ECG, with five or more treatment interventions per year | 30 |
| Confirmed by ECG, with one to four treatment interventions per year; or, confirmed by ECG with either continuous use of oral medications to control or use of vagal maneuvers to control | 10 |
| Note (1): Examples of supraventricular tachycardia include, but are not limited to: Atrial fibrillation, atrial flutter, sinus tachycardia, sinoatrial nodal reentrant tachycardia, atrioventricular nodal reentrant tachycardia, atrioventricular reentrant tachycardia, atrial tachycardia, junctional tachycardia, and multifocal atrial tachycardia. | |
| Note (2): For the purposes of this diagnostic code, a treatment intervention occurs whenever a symptomatic patient requires intravenous pharmacologic adjustment, cardioversion, and/or ablation for symptom relief. | |
| 7011 Ventricular arrhythmias (sustained): | |
| For an indefinite period from the date of inpatient hospital admission for initial medical therapy for a sustained ventricular arrhythmia; or, for an indefinite period from the date of inpatient hospital admission for ventricular aneurysmectomy; or, with an automatic implantable cardioverter-defibrillator (AICD) in place | 100 |
| Note: When inpatient hospitalization for sustained ventricular arrhythmia or ventricular aneurysmectomy is required, a 100-percent evaluation begins on the date of hospital admission with a mandatory VA examination six months following hospital discharge. Evaluate post-surgical residuals under the General Rating Formula. Apply the provisions of § 3.105(e) of this chapter to any change in evaluation based upon that or any subsequent examination. | |
| 7015 Atrioventricular block: | |
| Benign (First-Degree and Second-Degree, Type I): | |
| Evaluate under the General Rating Formula. | |
| Non-Benign (Second-Degree, Type II and Third-Degree): | |
| Evaluate under DC 7018 (implantable cardiac pacemakers). | |
| 7016 Heart valve replacement (prosthesis): | |
| For an indefinite period following date of hospital admission for valve replacement | 100 |
| Thereafter, use the General Rating Formula. | |
| Note: Six months following discharge from inpatient hospitalization, disability evaluation shall be conducted by mandatory VA examination using the General Rating Formula. Apply the provisions of § 3.105(e) of this chapter to any change in evaluation based upon that or any subsequent examination. | |
| 7017 Coronary bypass surgery: | |
| For three months following hospital admission for surgery | 100 |
| Thereafter, use the General Rating Formula. | |
| 7018 Implantable cardiac pacemakers: | |
| For one month following hospital discharge for implantation or re-implantation | 100 |
| Thereafter: | |
| Evaluate as supraventricular tachycardia (DC 7010), ventricular arrhythmias (DC 7011), or atrioventricular block (DC 7015). | |
| Minimum | 10 |
| Note: Evaluate automatic implantable cardioverter-defibrillators (AICDs) under DC 7011. | |
| 7019 Cardiac transplantation: | |
| For a minimum of one year from the date of hospital admission for cardiac transplantation | 100 |
| Thereafter: | |
| Evaluate under the General Rating Formula. | |
| Minimum | 30 |
| Note: One year following discharge from inpatient hospitalization, determine the appropriate disability rating by mandatory VA examination. Apply the provisions of § 3.105(e) of this chapter to any change in evaluation based upon that or any subsequent examination. | |
| 7020 Cardiomyopathy. | |

DISEASES OF THE ARTERIES AND VEINS

| | |
|--|-----|
| 7110 Aortic aneurysm: Ascending, thoracic, or abdominal: | |
| Evaluate at 100 percent if the aneurysm is any one of the following: Five centimeters or larger in diameter; symptomatic (e.g., precludes exertion); or requires surgery | 100 |
| Otherwise | 0 |
| Evaluate non-cardiovascular residuals of surgical correction according to organ systems affected. | |

DISEASES OF THE HEART—Continued

[Unless otherwise directed, use this general rating formula to evaluate diseases of the heart.]

| | Rating |
|---|--------|
| <p>Note: When surgery is required, a 100-percent evaluation begins on the date a physician recommends surgical correction with a mandatory VA examination six months following hospital discharge. Evaluate post-surgical residuals under the General Rating Formula. Any change in evaluation based upon that or any subsequent examination shall be subject to the provisions of § 3.105(e) of this chapter.</p> | |
| 7111 Aneurysm, any large artery: | |
| If symptomatic; or, for the period beginning on the date a physician recommends surgical correction and continuing for six months following discharge from inpatient hospital admission for surgical correction | 100 |
| Following surgery: Evaluate under DC 7114 (peripheral arterial disease). | |
| <p>Note: Six months following discharge from inpatient hospitalization for surgery, determine the appropriate disability rating 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.</p> | |
| * * * * * | |
| 7113 Arteriovenous fistula, traumatic: | |
| With high-output heart failure | 100 |
| Without heart failure but with enlarged heart, wide pulse pressure, and tachycardia | 60 |
| Without cardiac involvement but with chronic edema, stasis dermatitis, and either ulceration or cellulitis: | |
| Lower extremity | 50 |
| Upper extremity | 40 |
| Without cardiac involvement but with chronic edema or stasis dermatitis: | |
| Lower extremity | 30 |
| Upper extremity | 20 |
| 7114 Peripheral arterial disease: | |
| At least one of the following: Ankle/brachial index less than or equal to 0.39; ankle pressure less than 50 mm Hg; toe pressure less than 30 mm Hg; or transcutaneous oxygen tension less than 30 mm Hg | 100 |
| At least one of the following: Ankle/brachial index of 0.40–0.53; ankle pressure of 50–65 mm Hg; toe pressure of 30–39 mm Hg; or transcutaneous oxygen tension of 30–39 mm Hg | 60 |
| At least one of the following: Ankle/brachial index of 0.54–0.66; ankle pressure of 66–83 mm Hg; toe pressure of 40–49 mm Hg; or transcutaneous oxygen tension of 40–49 mm Hg | 40 |
| At least one of the following: Ankle/brachial index of 0.67–0.79; ankle pressure of 84–99 mm Hg; toe pressure of 50–59 mm Hg; or transcutaneous oxygen tension of 50–59 mm Hg | 20 |
| <p>Note (1): The ankle/brachial index (ABI) is the ratio of the systolic blood pressure at the ankle divided by the simultaneous brachial artery systolic blood pressure. For the purposes of this diagnostic code, normal ABI will be greater than or equal to 0.80. The ankle pressure (AP) is the systolic blood pressure measured at the ankle. Normal AP is greater than or equal to 100 mm Hg. The toe pressure (TP) is the systolic blood pressure measured at the great toe. Normal TP is greater than or equal to 60 mm Hg. Transcutaneous oxygen tension (T_cPO₂) is measured at the first intercostal space on the foot. Normal T_cPO₂ is greater than or equal to 60 mm Hg. All measurements must be determined by objective testing.</p> | |
| <p>Note (2): Select the highest impairment value of ABI, AP, TP, or T_cPO₂ for evaluation.</p> | |
| <p>Note (3): Evaluate residuals of aortic and large arterial bypass surgery or arterial graft as peripheral arterial disease.</p> | |
| <p>Note (4): These evaluations involve 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.</p> | |
| 7115 Thrombo-angiitis obliterans (Buerger's Disease): | |
| Lower extremity: Rate under DC 7114. | |
| Upper extremity: | |
| Deep ischemic ulcers and necrosis of the fingers with persistent coldness of the extremity, trophic changes with pains in the hand during physical activity, and diminished upper extremity pulses | 100 |
| Persistent coldness of the extremity, trophic changes with pains in the hands during physical activity, and diminished upper extremity pulses | 60 |
| Trophic changes with numbness and paresthesia at the tips of the fingers, and diminished upper extremity pulses | 40 |
| Diminished upper extremity pulses | 20 |
| <p>Note (1): These evaluations involve 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.</p> | |
| <p>Note (2): Trophic changes include, but are not limited to, skin changes (thinning, atrophy, fissuring, ulceration, scarring, absence of hair) as well as nail changes (clubbing, deformities).</p> | |
| 7117 Raynaud's syndrome (also known as secondary Raynaud's phenomenon or secondary Raynaud's): | |
| With two or more digital ulcers plus auto-amputation of one or more digits and history of characteristic attacks | 100 |
| With two or more digital ulcers and history of characteristic attacks | 60 |
| Characteristic attacks occurring at least daily | 40 |
| Characteristic attacks occurring four to six times a week | 20 |
| Characteristic attacks occurring one to three times a week | 10 |
| <p>Note (1): For purposes of this section, characteristic attacks consist of sequential color changes of the digits of one or more extremities lasting minutes to hours, sometimes with pain and paresthesias, and precipitated by exposure to cold or by emotional upsets. These evaluations are for Raynaud's syndrome as a whole, regardless of the number of extremities involved or whether the nose and ears are involved.</p> | |
| <p>Note (2): This section is for evaluating Raynaud's syndrome (secondary Raynaud's phenomenon or secondary Raynaud's). For evaluation of Raynaud's disease (primary Raynaud's), see DC 7124.</p> | |
| * * * * * | |
| 7120 Varicose veins: | |
| Evaluate under diagnostic code 7121. | |

DISEASES OF THE HEART—Continued

[Unless otherwise directed, use this general rating formula to evaluate diseases of the heart.]

| | | | | | | | Rating |
|---|--|---|---|---|---|---|--------|
| * | * | * | * | * | * | * | |
| 7122 | Cold injury residuals: | | | | | | |
| | With the following in affected parts: | | | | | | |
| | Arthralgia or other pain, numbness, or cold sensitivity plus two or more of the following: Tissue loss, nail abnormalities, color changes, locally impaired sensation, hyperhidrosis, anhidrosis, X-ray abnormalities (osteoporosis, subarticular punched-out lesions, or osteoarthritis), atrophy or fibrosis of the affected musculature, flexion or extension deformity of distal joints, volar fat pad loss in fingers or toes, avascular necrosis of bone, chronic ulceration, carpal or tarsal tunnel syndrome | | | | | | 30 |
| | Arthralgia or other pain, numbness, or cold sensitivity plus one of the following: Tissue loss, nail abnormalities, color changes, locally impaired sensation, hyperhidrosis, anhidrosis, X-ray abnormalities (osteoporosis, subarticular punched-out lesions, or osteoarthritis), atrophy or fibrosis of the affected musculature, flexion or extension deformity of distal joints, volar fat pad loss in fingers or toes, avascular necrosis of bone, chronic ulceration, carpal or tarsal tunnel syndrome | | | | | | 20 |
| | Arthralgia or other pain, numbness, or cold sensitivity | | | | | | 10 |
| Note (1): Separately evaluate amputations of fingers or toes, and complications such as squamous cell carcinoma at the site of a cold injury scar or peripheral neuropathy, under other diagnostic codes. Separately evaluate other disabilities diagnosed as the residual effects of cold injury, such as Raynaud's syndrome (which is otherwise known as secondary Raynaud's phenomenon), muscle atrophy, etc., unless they are used to support an evaluation under diagnostic code 7122. | | | | | | | |
| Note (2): Evaluate each affected part (e.g., hand, foot, ear, nose) separately and combine the ratings in accordance with §§ 4.25 and 4.26. | | | | | | | |
| * | * | * | * | * | * | * | |
| 7124 | Raynaud's disease (also known as primary Raynaud's): | | | | | | |
| | Characteristic attacks associated with trophic change(s), such as tight, shiny skin | | | | | | 10 |
| | Characteristic attacks without trophic change(s) | | | | | | 0 |
| Note (1): For purposes of this section, characteristic attacks consist of intermittent and episodic color changes of the digits of one or more extremities, lasting minutes or longer, with occasional pain and paresthesias, and precipitated by exposure to cold or by emotional upsets. These evaluations are for the disease as a whole, regardless of the number of extremities involved or whether the nose and ears are involved. | | | | | | | |
| Note (2): Trophic changes include, but are not limited to, skin changes (thinning, atrophy, fissuring, ulceration, scarring, absence of hair) as well as nail changes (clubbing, deformities). | | | | | | | |
| Note (3): This section is for evaluating Raynaud's disease (primary Raynaud's). For evaluation of Raynaud's syndrome (also known as secondary Raynaud's phenomenon, or secondary Raynaud's), see DC 7117. | | | | | | | |

- * * * * *
 - 4. Amend appendix A to part 4 under 4.104 by:
 - a. Adding an entry for "General Rating Formula for Diseases of the Heart" above the entry for diagnostic code 7000;
 - b. Revising the entries for DCs 7000 through 7008;
 - c. Adding in numerical order an entry for DC 7009;
 - d. Revising the entries for DCs 7010, 7011, 7015 through 7020, 7110, 7111, 7113 through 7115, 7117, 7120, and 7122; and
 - e. Adding in numerical order an entry for DC 7124.
- The additions and revisions read as follows:

Appendix A to Part 4—Table of Amendments and Effective Dates Since 1946

| Sec. | Diagnostic code No. | |
|-------|---------------------|--|
| * | * | * |
| 4.104 | | General Rating Formula for Diseases of the Heart November 14, 2021. |
| | 7000 | Evaluation July 6, 1950; evaluation September 22, 1978, evaluation January 12, 1998; criterion November 14, 2021. |
| | 7001 | Evaluation January 12, 1998; criterion November 14, 2021. |
| | 7002 | Evaluation January 12, 1998; criterion November 14, 2021. |
| | 7003 | Evaluation January 12, 1998; criterion November 14, 2021. |
| | 7004 | Criterion September 22, 1978; evaluation January 12, 1998; criterion November 14, 2021. |
| | 7005 | Evaluation September 9, 1975; evaluation September 22, 1978; evaluation January 12, 1998; criterion November 14, 2021. |
| | 7006 | Evaluation January 12, 1998; criterion November 14, 2021. |
| | 7007 | Evaluation September 22, 1978; evaluation January 12, 1998; criterion November 14, 2021. |
| | 7008 | Evaluation January 12, 1998; criterion December 10, 2017; evaluation November 14, 2021. |
| | 7009 | Added November 14, 2021. |
| | 7010 | Evaluation January 12, 1998; title, criterion November 14, 2021. |
| | 7011 | Evaluation January 12, 1998; note, criterion November 14, 2021. |
| * | * | * |
| | 7015 | Evaluation September 9, 1975; criterion January 12, 1998; criterion November 14, 2021. |
| | 7016 | Added September 9, 1975; criterion January 12, 1998; note, criterion November 14, 2021. |
| | 7017 | Added September 22, 1978; evaluation January 12, 1998; criterion November 14, 2021. |

| Sec. | Diagnostic code No. |
|------|---|
| | 7018 Added January 12, 1998; criterion November 14, 2021. |
| | 7019 Added January 12, 1998; note, criterion November 14, 2021. |
| | 7020 Added January 12, 1998; criterion November 14, 2021. |
| * | * |
| | 7110 Evaluation September 9, 1975; evaluation January 12, 1998; title, criterion, note November 14, 2021. |
| | 7111 Criterion September 9, 1975; evaluation January 12, 1998; note, criterion November 14, 2021. |
| * | * |
| | 7113 Evaluation January 12, 1998; criterion November 14, 2021. |
| | 7114 Added June 9, 1952; evaluation January 12, 1998; title, criterion, note November 14, 2021. |
| | 7115 Added June 9, 1952; evaluation January 12, 1998; note, criterion, evaluation November 14, 2021. |
| * | * |
| | 7117 Added June 9, 1952; evaluation January 12, 1998; title, note November 14, 2021. |
| * | * |
| | 7120 Note following July 6, 1950; evaluation January 12, 1998; criterion November 14, 2021. |
| | 7122 Last sentence of Note following July 6, 1950; evaluation January 12, 1998; criterion August 13, 1998; criterion November 14, 2021. |
| * | * |
| | 7124 Added November 14, 2021. |
| * | * |

- 5. Amend appendix B to part 4 at “The Cardiovascular System” section”:
- a. Under the heading “Diseases of the Heart—
- i. By adding in numerical order an entry for diagnostic code 7009; and

- ii. By revising the entry for diagnostic code 7010;
- b. Under the heading “Diseases of the Arteries and Veins”—
- i. By revising diagnostic codes 7110, 7114, and 7117; and

- ii. By adding in numerical order an entry for diagnostic code 7124.
- The additions and revisions read as follows:
- Appendix B to Part 4—Numerical Index of Disabilities**

| Diagnostic code No. |
|---------------------|
| * |

THE CARDIOVASCULAR SYSTEM
Diseases of the Heart

| | | | | | | |
|------|-------|---|---|---|---|---|
| * | * | * | * | * | * | * |
| 7009 | | Bradycardia (Bradyarrhythmia), symptomatic, requiring permanent pacemaker implantation. | | | | |
| 7010 | | Supraventricular tachycardia. | | | | |
| * | * | * | * | * | * | * |

Diseases of the Arteries and Veins

| | | | | | | |
|------|-------|---|---|---|---|---|
| * | * | * | * | * | * | * |
| 7110 | | Aortic aneurysm: ascending, thoracic, abdominal. | | | | |
| * | * | * | * | * | * | * |
| 7114 | | Peripheral arterial disease. | | | | |
| * | * | * | * | * | * | * |
| 7117 | | Raynaud’s syndrome (secondary Raynaud’s phenomenon, secondary Raynaud’s). | | | | |
| * | * | * | * | * | * | * |
| 7124 | | Raynaud’s disease (primary Raynaud’s). | | | | |
| * | * | * | * | * | * | * |

- 6. Amend appendix C to part 4 by:
- a. Revising the entry for “Aneurysm”;

- b. Removing the entries for “Arrhythmia” (with its sub-entries

“Supraventricular” and “Ventricular”) and “Arteriosclerosis obliterans”;

■ c. Adding in alphabetical order entries for “Bradycardia (Bradyarrhythmia), symptomatic, requiring permanent pacemaker implantation”, “Peripheral arterial disease”, and “Raynaud’s disease (primary Raynaud’s)”;

■ d. Revising the entry for Raynaud’s syndrome”; and

■ e. Adding entries for “Supraventricular tachycardia” and “Ventricular arrhythmia”.

The revisions and additions read as follows:

Appendix C to Part 4—Alphabetical Index of Disabilities

| | Diagnostic code No. |
|--|---------------------|
| Aneurysm: | |
| Aortic: ascending, thoracic, abdominal | 7110 |
| Large artery | 7111 |
| Small artery | 7118 |
| Bradycardia (Bradyarrhythmia), symptomatic, requiring permanent pacemaker implantation | 7009 |
| Peripheral arterial disease | 7114 |
| Raynaud’s disease (primary Raynaud’s) | 7124 |
| Raynaud’s syndrome (secondary Raynaud’s phenomenon, secondary Raynaud’s) | 7117 |
| Supraventricular tachycardia | 7010 |
| Ventricular arrhythmia | 7011 |

[FR Doc. 2021–19998 Filed 9–29–21; 8:45 am]
 BILLING CODE 8320–01–P

ENVIRONMENTAL PROTECTION AGENCY

40 CFR Part 52

[EPA–R07–OAR–2021–0360; FRL–8707–02–R7]

Air Plan Approval; Approval of Missouri Air Quality Implementation Plans; Revisions to St. Louis 2008 8-Hour Ozone Maintenance Plan

AGENCY: Environmental Protection Agency (EPA).

ACTION: Final rule.

SUMMARY: The Environmental Protection Agency (EPA) is taking final action to approve a State Implementation Plan (SIP) revision submitted by the State of Missouri on November 12, 2019, revising the maintenance plan demonstrating continued maintenance of the 2008 ozone National Ambient Air Quality Standard (NAAQS), the 1979 1-Hour and 1997 8-Hour ozone standards in the St. Louis area. This revision demonstrates that the St. Louis area no longer needs to rely on the vehicle Inspection and Maintenance (I/M) program and the use of Reformulated

Gasoline (RFG) for continued maintenance throughout the maintenance period for the 2008 8-Hour ozone NAAQS, the 1979 1-Hour ozone NAAQS and 1997 8-Hour ozone NAAQS. The EPA has determined that this revision meets the requirements of the Clean Air Act (CAA).

DATES: This final rule is effective on November 1, 2021.

ADDRESSES: The EPA has established a docket for this action under Docket ID No. EPA–R07–OAR–2021–0360. All documents in the docket are listed on the <https://www.regulations.gov> website. Although listed in the index, some information is not publicly available, *i.e.*, confidential business information (CBI) or other information whose disclosure is restricted by statute. Certain other material, such as copyrighted material, is not placed on the internet and will be publicly available only in hard copy form. Publicly available docket materials are available through <https://www.regulations.gov> or please contact the person identified in the **FOR FURTHER INFORMATION CONTACT** section for additional information.

FOR FURTHER INFORMATION CONTACT: Steven Brown, Environmental Protection Agency, Region 7 Office, Air Quality Planning Branch, 11201 Renner

Boulevard, Lenexa, Kansas 66219; telephone number (913) 551–7718; email address: brown.steven@epa.gov.

SUPPLEMENTARY INFORMATION: Throughout this document “we,” “us,” and “our” refer to EPA.

Table of Contents

- I. What is being addressed in this document?
- II. Have the requirements for approval of a SIP revision been met?
- III. What Action is the EPA taking?
- IV. Statutory and executive order reviews

I. What is being addressed in this document?

The EPA is taking final action to approve SIP revisions submitted by the State of Missouri on November 12, 2019, revising the 2008 8-hour ozone maintenance plan previously approved on September 20, 2018 (83 FR 47572). This SIP revision demonstrates continued maintenance of the 2008 8-Hour ozone NAAQS, the 1979 1-Hour ozone NAAQS and 1997 8-Hour ozone NAAQS in the St. Louis area through the future year of 2030. The maintenance area boundary includes the Missouri counties of Franklin, Jefferson, St. Charles, and St. Louis along with the City of St. Louis.

Since the 2008 ozone standard is more stringent than the 1979 and 1997 ozone standards, and the boundary area