

Arizona Administrative CODE

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This Chapter contains rule Sections that were filed to be codified in the *Arizona Administrative Code* between the dates of July 1, 2018 through September 30, 2018

Title 13



ARD Office of the Secretary of State
ADMINISTRATIVE RULES DIVISION

TITLE 13. PUBLIC SAFETY

CHAPTER 13. DEPARTMENT OF PUBLIC SAFETY - SCHOOL BUSES

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Sections, Parts, Exhibits, Tables or Appendices codified in this supplement. The list provided contains quick links to the updated rules.

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The release of this Chapter in Supp. 18-3 replaces Supp. 15-4, 35 pages

Please note that the Chapter you are about to replace may have rules still in effect after the publication date of this supplement. Therefore, all superseded material should be retained in a separate binder and archived for future reference.

PREFACE

Under Arizona law, the Department of State, Office of the Secretary of State (Office), accepts state agency rule filings and is the publisher of Arizona rules. The Office of the Secretary of State does not interpret or enforce rules in the *Administrative Code*. Questions about rules should be directed to the state agency responsible for the promulgation of the rule.

Scott Cancelosi, Director
ADMINISTRATIVE RULES DIVISION

RULES

The definition for a rule is provided for under A.R.S. § 41-1001. “‘Rule’ means an agency statement of general applicability that implements, interprets, or prescribes law or policy, or describes the procedures or practice requirements of an agency.”

THE ADMINISTRATIVE CODE

The *Arizona Administrative Code* is where the official rules of the state of Arizona are published. The *Code* is the official codification of rules that govern state agencies, boards, and commissions.

The *Code* is separated by subject into titles. Titles are divided into chapters. A chapter includes state agency rules. Rules in chapters are divided into Articles, then Sections. The “R” stands for “rule” with a sequential numbering and lettering outline separated into subsections.

Rules are codified quarterly in the *Code*. Supplement release dates are printed on the footers of each chapter.

First Quarter: January 1 - March 31

Second Quarter: April 1 - June 30

Third Quarter: July 1 - September 30

Fourth Quarter: October 1 - December 31

For example, the first supplement for the first quarter of 2018 is cited as Supp. 18-1.

Please note: The Office publishes by chapter, not by individual rule section. Therefore there might be only a few sections codified in each chapter released in a supplement. Historical notes at the end of a section provide an effective date and information when a rule was last updated.

AUTHENTICATION OF PDF CODE CHAPTERS

The Office began to authenticate chapters of the *Administrative Code* in Supp. 18-1 to comply with A.R.S. § 41-1012(B) and A.R.S. § 5302(1), (2)(d) through (e), and (3)(d) through (e).

A certification verifies the authenticity of each *Code* chapter posted as it is released by the Office of the Secretary of State. The authenticated pdf of the *Code* includes an integrity mark with a certificate ID. Users should check the validity of the signature, especially if the pdf has been downloaded. If the digital signature is invalid it means the document’s content has been compromised.

HOW TO USE THE CODE

Rules may be in effect before a supplement is released by the Office. Therefore, the user should refer to issues of the *Arizona Administrative Register* for recent updates to rule Sections.

ARIZONA REVISED STATUTE REFERENCES

The Arizona Revised Statutes (A.R.S.) are available online at the Legislature’s website, www.azleg.gov. An agency’s authority

note to make rules is often included at the beginning of a chapter. Other Arizona statutes may be referenced in rule under the A.R.S. acronym.

SESSION LAW REFERENCES

Arizona Session Law references in a chapter can be found at the Secretary of State’s website, under Services-> Legislative Filings.

EXEMPTIONS FROM THE APA

It is not uncommon for an agency to be exempt from the steps outlined in the rulemaking process as specified in the Arizona Administrative Procedures Act, also known as the APA (Arizona Revised Statutes, Title 41, Chapter 6, Articles 1 through 10). Other agencies may be given an exemption to certain provisions of the Act.

An agency’s exemption is written in law by the Arizona State Legislature or under a referendum or initiative passed into law by Arizona voters.

When an agency files an exempt rulemaking package with our Office it specifies the law exemption in what is called the preamble of rulemaking. The preamble is published in the *Register* online at www.azsos.gov/rules, click on the *Administrative Register* link.

Editor’s notes at the beginning of a chapter provide information about rulemaking sections made by exempt rulemaking. Exempt rulemaking notes are also included in the historical note at the end of a rulemaking Section.

The Office makes a distinction to certain exemptions because some rules are made without receiving input from stakeholders or the public. Other exemptions may require an agency to propose exempt rules at a public hearing.

EXEMPTIONS AND PAPER COLOR

At one time the office published exempt rules on either blue or green paper. Blue meant the authority of the exemption was given by the Legislature; green meant the authority was determined by a court order. In 2001 the Office discontinued publishing rules using these paper colors.

PERSONAL USE/COMMERCIAL USE

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Rhonda Paschal, managing rules editor, assisted with the editing of this chapter.



Administrative Rules Division
The Arizona Secretary of State electronically publishes each A.A.C. Chapter with a digital certificate. The certificate-based signature displays the date and time the document was signed and can be validated in Adobe Acrobat Reader.

TITLE 13. PUBLIC SAFETY

CHAPTER 13. DEPARTMENT OF PUBLIC SAFETY - SCHOOL BUSES

Editor's Note: When this Chapter was recodified the Department included Sections R13-13-111 and R12-13-112 in its conversion table but didn't not include the text of these Sections. Therefore, the Section text was not included in the recodification in Supp. 14-3. The text of these Sections have been added in Supp. 18-3 to reflect the Department's original intent to recodify these two Sections. Exhibits A and B were inadvertently recodified in Supp. 14-3. It was the Department's intent not to recodify these Exhibits therefore they have been removed in Supp. 18-3.

Editor's Note: This Chapter was recodified from 17 A.A.C. 9 under A.R.S. § 41-1011(C) at 20 A.A.R. 2083. Section cross-references were revised to conform to this Chapter's numbering scheme (Supp. 14-3). Original rules filed under 17 A.A.C. 9 were adopted by the Department of Administration in consultation with the Department of Public Safety and the School Bus Advisory Council at 2 A.A.R. 1141 (Supp. 96-1).

ARTICLE 1. SCHOOL BUS MINIMUM STANDARDS

Article 1, consisting of new Sections R13-13-101 through R13-13-112, recodified from 17 A.A.C. 9, Article 1, R17-9-101 through R17-9-112, at 20 A.A.R. 2083, effective July 25, 2014 (Supp. 14-3).

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ARTICLE 2. MINIMUM STANDARDS FOR SCHOOL BUSES OPERATED ON ALTERNATIVE FUEL

Article 2, consisting of new Sections R13-13-201 and R13-13-202, recodified from 17 A.A.C. 9, Article 2, R17-9-201 through R17-9-208, at 20 A.A.R. 2083, effective July 25, 2014 (Supp. 14-3).

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CHAPTER 13. DEPARTMENT OF PUBLIC SAFETY - SCHOOL BUSES

ARTICLE 1. SCHOOL BUS MINIMUM STANDARDS**R13-13-101. Definitions**

In this Chapter, unless otherwise specified:

“Accident” means any unexpected occurrence involving a moving or non-moving school bus that results in any bodily injury or fatality to a passenger or non-passenger, damage to personal or real property outside the school bus, or damage to the school bus that affects the integrity of the school bus or results in a major defect as described in R13-13-108(B).

“Alternately flashing signal lamps” means a system of red or red and amber lamps that are mounted horizontally to both the front and rear of the school bus body and used to inform the public that the school bus is preparing to stop or has stopped to load or unload passengers. Alternately flashing signal lamps can be either a four-lamp system as described in R13-13-107(17)(c)(i) or an eight-lamp system as described in R13-13-9-107(c)(ii).

“Alteration” means any addition, modification, or removal of any equipment or component after a school bus is inspected by the Department, which may affect the operations of the school bus; compliance with the statutes or rules applicable to school buses; or the health, safety, or welfare of any individual.

“Applicant” means an individual who submits an application to the Department to obtain a certificate to operate a school bus.

“ASE” means National Institute of Automotive Service Excellence.

“Auxiliary fan” means a device mounted inside the school bus body used to supplement the heating, defrosting, or air-conditioning systems by circulating air in the school bus.

“Behind-the-wheel instructor” means an individual qualified under R13-13-103 to provide behind-the-wheel training to applicants.

“Behind-the-wheel training” means the complete physical control of a school bus by an applicant while accompanied by and under direct observation of a behind-the-wheel instructor.

“Belt cutter” means a hand-held instrument containing a blade used to sever a seat belt or a wheelchair-securement device.

“Certificate” means a written authorization issued by the Department to operate a school bus in Arizona.

“Chassis” means the part of a school bus that consists of all base components, including the frame, front and rear suspension, exhaust system, brakes, engine, engine hood or cover, transmission, front and rear axles, front fenders, drive train and shaft, fuel system, engine air intake and filter, clutch and accelerator pedals, steering wheel, tires, heating and cooling system, battery, and controls and instruments to operate the school bus.

“Chassis cowl” means those parts of a Type C school bus that are located in front of the cowl and attached before a school bus manufacturer adds the school bus body.

“Citation” has the same meaning as at A.R.S. § 28-1872.

“Classroom instructor” means an individual qualified under R13-13-103 to provide classroom training to:

Applicants to operate a school bus,

Individuals becoming qualified to teach classroom training,

Individuals becoming qualified to teach techniques of behind-the-wheel training, or

School bus drivers taking refresher training.

“Classroom training” means the courses required by the Department of an applicant before the applicant is certified or of an individual seeking qualification as a classroom or behind-the-wheel instructor.

“Commercial driver license” has the same meaning as at A.R.S. § 28-3001.

“Controlled substances and alcohol testing” means a determination of an applicant’s or school bus driver’s use of marijuana, cocaine, phencyclidine, opiates, amphetamines, and alcohol prescribed by 49 CFR 382, October 2006 (no later amendments or editions), and conducted in accordance with the procedures at 49 CFR 40, October 2006 (no later amendments or editions), both published by the U.S. Government Printing Office, Superintendent of Documents, Mail Stop: SSOP, Washington, D.C. 20402-9328, incorporated by reference, and on file with the Department; and a determination of an applicant’s or school bus driver’s use of marijuana, cocaine, phencyclidine, opiates, amphetamines, barbiturates, benzodiazepines, methadone, and propoxyphene as required by these rules and conducted in accordance with a procedure that is generally accepted in the scientific community to be accurate and reliable.

“Cowl” means the portion of the chassis in a Type C school bus that separates the school bus engine from the school bus driver’s compartment.

“Cutaway van” means a chassis to which a completed driver’s compartment is attached before a school bus manufacturer adds a school bus body.

“dB(A)” means decibels A scale, a term denoting that noise level has been adjusted to duplicate human hearing.

“Driver’s compartment” means the part of a school bus body that is separated from the passenger compartment by a barrier and contains the controls and instruments for the operation of the school bus.

“Emergency-brake system” means mechanical components used to slow or stop a school bus after a failure of the service-brake system.

“Emergency exit” means an opening in a school bus, including a door, push-out window, or roof hatch, used to unload passengers in the event of an occurrence that requires immediate evacuation of the school bus.

“Employer” means a private business or school district that hires applicants and certified school bus drivers to operate school buses.

“Fingerprint clearance card” has the same requirements as in A.R.S. § 41-1758.03.

“Frame” means the structural foundation upon which a school bus chassis is constructed.

“Frontage road” means a street that parallels an interstate highway and furnishes access to streets and property that would otherwise be unreachable from the interstate highway.

“Gross vehicle weight rating” means the value specified by the manufacturer as the maximum total loaded weight of a school bus, calculated in accordance with R13-13-106(27).

“Health care professional” means:

A physician licensed to practice medicine under A.R.S. § 32-1401 et seq., osteopathy under A.R.S. § 32-1800 et seq., or chiropractic under A.R.S. § 32-900 et seq.;

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A physician licensed to practice medicine, osteopathy, or chiropractic in a state contiguous to Arizona;

A physician employed by the United States government and licensed by a state or territory of the United States;

A physician assistant licensed under A.R.S. § 32-2501 et seq.; or

A registered nurse practitioner licensed under A.R.S. § 32-1601 et seq.

“Highway” has the same meaning as at A.R.S. § 28-101.

“Identification” means the signs, lettering, or numbers placed on the interior or exterior of a school bus body, including the glass areas, but does not include the lettering, numbers, or logos of a manufacturer or distributor of the manufacturer’s product.

“Identity verified fingerprint clearance card” has the same requirements as A.R.S. § 15-106.

“Ignition power-deactivation switch” means a device that when set causes the engine of a motor vehicle to stop operating if the transmission is placed into gear or the parking-brake system is released.

“Interstate highway” means the designation given by the federal government to the system of highways connecting two or more states of the United States.

“Lamp” means a device that is covered by a lens and used to produce artificial light.

“Major defect” means a condition that exists to the interior or exterior of a school bus that causes the Department or owner to place the school bus out of service while the defect is being corrected.

“Manufacturer” means an entity engaged in the manufacturing or assembling of a school bus chassis, school bus body, or school bus chassis and body.

“Medical practitioner” has the same meaning as at A.R.S. § 32-1901.

“Minor defect” means a condition that exists to the interior or exterior of a school bus that is not a major defect and allows the school bus to remain in operation while the defect is being corrected.

“Off-duty” means the time a school bus driver is not on-duty.

“On-duty” means the period between the time a school bus driver begins to work for the employer or is required to be ready to work for the employer until the time the school bus driver is relieved from work and all responsibility for performing work for the employer. The time on-duty is used only to determine when a school bus driver must be provided time off-duty. Time on-duty may be compensated by the employer or an entity other than the employer or may be uncompensated. On-duty includes:

All time at an employer’s place of business, waiting to be dispatched;

All time performing an operations check of a school bus in accordance with R13-13-108, or servicing or conditioning a school bus;

All time driving a school bus, including loading or unloading the school bus, and remaining in readiness to drive a school bus;

All time, at the direction of the employer, travelling but not driving a school bus or assuming any other responsibility to the employer. If the school bus driver is afforded at least eight consecutive hours off-duty upon arrival at the school

bus driver’s destination after travelling but not driving a school bus or assuming any other responsibility to the employer, the school bus driver shall be considered off-duty for the entire period travelling but not driving the school bus or assuming any other responsibility to the employer;

All time repairing, obtaining assistance, or remaining in attendance upon a disabled school bus;

All time preparing required reports and records;

All time providing a breath or urine sample, including travel time to and from the collection site, to comply with the testing requirements of this Chapter;

All time performing any other work for the employer; and

All time performing any compensated work for any entity other than the employer.

“Out of service” means a school bus cannot be used to transport passengers.

“Owner” means the public or governmental agency or institution or private company in whose name a school bus is titled.

“Parking-brake system” means mechanical components used to prevent the movement of a school bus while loading or unloading a passenger or when the school bus is parked.

“Passenger” means an individual who rides in a school bus but does not participate in the operation of the school bus.

“Passenger compartment” means that part of the school bus body that is separated from the school bus driver’s compartment by a barrier and holds the passengers to be transported.

“Physical examination” means an evaluation of an applicant’s or school bus driver’s medical status performed by a health care professional according to this Article.

“Physical examination form” means the Arizona Department of Transportation, Motor Vehicle Division, Medical Examination Report, which is used to record the results of a physical examination and may be obtained from the Department or Arizona Department of Transportation, Motor Vehicle Division.

“Physical performance test” means an evaluation of an applicant’s or school bus driver’s reflexes, agility, and strength performed according to this Article.

“Physical performance test form” means the document used to record the results of a physical performance test and may be obtained from the Department.

“Push-out window” means safety glass enclosed in a frame on a school bus that moves to the outside of the school bus when force is applied to the window from inside the school bus.

“Refresher training” means the courses required by the Department of each school bus driver to maintain certification as a school bus driver in Arizona.

“Restraining barrier” means a structure located in front of any school bus seat that restricts the forward motion of a passenger.

“Rub rail” means a horizontal steel bar attached to the outside of a school bus body used to reinforce the sides of the school bus.

“Safety glass” has the same meaning as at A.R.S. § 28-959(F).

“School” means a school as defined by A.R.S. § 15-101(19), accommodation school as defined by A.R.S. § 15-101(1), charter school as defined by A.R.S. § 15-101(3), or private school as defined by A.R.S. § 15-101(18).

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“School bus” has the same meaning as at A.R.S. § 28-101.

“School bus body” means a structure assembled upon a chassis designed to carry a school bus driver and passengers.

“School bus driver” means an individual who is certified by the Department as meeting the requirements at A.R.S. § 28-3228 and R13-13-102 to operate a school bus in Arizona.

“School district” has the same meaning as at A.R.S. § 15-101 (20).

“Service-brake system” means mechanical components used to slow or stop a school bus.

“Service door” means a metal structure used to close the opening of a service entrance.

“Service entrance” means an opening in a school bus used to load or unload passengers.

“Special needs school bus” means a school bus that is designed to transport disabled passengers, some of whom may use a wheelchair, and is constructed with a service entrance and a special-service entrance.

“Special-service entrance” means an opening in a school bus that accommodates a wheelchair lift for the loading or unloading of a passenger who uses a wheelchair.

“Special-service entrance door” means a metal structure used to close the opening of a special-service entrance.

“Street” has the same meaning as at A.R.S. § 28-101.

“Traffic control signal” has the same meaning as at A.R.S. § 28-601.

“Training” means the instruction, courses, classes, or workshops provided by the Department or the employer that are required to obtain or maintain certification as a school bus driver or qualification as a classroom or behind-the-wheel instructor, or qualification to administer the physical performance test in Arizona.

“Transport” or “transporting” means a school bus driver sets a school bus in motion to carry passengers or objects authorized by the school district to be carried in a school bus.

“Type A school bus” means a conversion bus constructed utilizing a cutaway front section vehicle with a left side driver’s door. This definition includes two classifications: Type A-1, with a Gross Vehicle Weight Rating (GVWR) of 14,500 pounds or less; and Type A-2, with a GVWR greater than 14,500 pounds and less than or equal to 21,500 pounds.

“Type B school bus” means a school bus constructed utilizing a stripped chassis. The entrance door is behind the front wheels. This definition includes two classifications: Type B-1, with a GVWR of 10,000 pounds or less, and Type B-2, with a GVWR greater than 10,000 pounds.

“Type C school bus,” also known as a conventional style school bus, means a school bus constructed utilizing a chassis with a hood and front fender assembly. The entrance door is behind the front wheels. A Type C school bus may have a cutaway truck chassis or truck chassis with cab with or without a left side door and with a GVWR greater than 21,500 pounds.

“Type D school bus,” also known as a rear engine or front engine transit-style school bus, means a school bus constructed utilizing a stripped chassis. The entrance door is ahead of the front wheels.

“Van” means a covered or enclosed truck.

“Wheelchair” means a mobility aid consisting of a frame, seat, and three or four wheels, which is used to support and carry a disabled passenger.

“Wheelchair lift” means an electric hydraulic mechanism and platform in a school bus used to raise and lower a passenger in a wheelchair.

“Wheelchair-lift platform” means a horizontal surface upon which a wheelchair sits while being raised or lowered.

“Wheelchair-passenger restraint” means a combination of a pelvic and an upper torso restraint, including buckles and fasteners, designed to secure a passenger in a wheelchair within a school bus.

“Wheelchair-passenger restraint anchorage” means equipment for fastening wheelchair-passenger restraints to the interior of a school bus.

“Wheelchair-securement anchorage” means equipment for fastening a wheelchair-securement device to a school bus floor.

“Wheelchair-securement device” means a strap or webbing, including buckles and fasteners, used for fastening a wheelchair to a wheelchair-securement anchorage.

“Wheelchair-securement system” means components used to fasten a wheelchair to the interior of a school bus, including a wheelchair-securement anchorage and a wheelchair-securement device.

Historical Note

Adopted effective February 16, 1996 (Supp. 96-1). Amended by final rulemaking at 7 A.A.R. 2906, effective June 13, 2001 (Supp. 01-2). Amended by final rulemaking at 11 A.A.R. 557, effective March 5, 2005 (Supp. 05-1). Amended by final rulemaking at 14 A.A.R. 2110, effective May 8, 2008 (Supp. 08-2). New Section R13-13-101 recodified from R17-9-101 with Section cross-references revised, at 20 A.A.R. 2083, effective July 25, 2014 (Supp. 14-3). Amended by final rulemaking at 24 A.A.R. 2306, effective July 24, 2018 (Supp. 18-3).

R13-13-102. Certification of School Bus Drivers

A. Certification requirements: An individual shall not operate a school bus in Arizona without being certified by the Department. An applicant for certification shall:

1. Be a minimum of 18 years of age;
2. Possess a valid identity verified fingerprint clearance card.
3. Submit all of the following to the Department through the employer:
 - a. An application signed and dated by the applicant that states the applicant’s:
 - i. Name, home address, and home phone number;
 - ii. Any alias ever used by the applicant;
 - iii. Social Security number;
 - iv. Date of birth;
 - v. Arizona commercial driver license number;
 - vi. Date of previous application for certification, if any;
 - vii. Intended employer’s name;
 - viii. Convictions for a felony or misdemeanor, if any, in this state or any other state;
 - ix. Total points accumulated against the applicant’s driving record during the two years immediately preceding the date of application using the point system contained in A.A.C. R17-4-404; and

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- x. Identity verified fingerprint clearance card number.
 - b. Completed physical examination form, completed physical performance test form, and results of controlled substances testing; and
 - c. A verification made under penalty of perjury that all submitted information is true and complete;
4. Possess a current Arizona commercial driver license under A.R.S. § 28- 3101;
 5. Possess any Arizona driver license endorsement required under A.R.S. § 28-3103;
 6. Meet the driving record requirements listed in this Article; and
 7. Complete the training requirements listed in this Article.
- B. Physical examination**
1. An applicant or school bus driver shall submit to a physical examination that is conducted by a health care professional in accordance with the physical examination form. An applicant or school bus driver is qualified to be certified as a school bus driver only if the health care professional conducts the physical examination in accordance with the physical examination form and concludes that the applicant or school bus driver has no condition that would interfere with the applicant's or school bus driver's ability to:
 - a. Operate a school bus safely,
 - b. Evacuate a school bus during an emergency or during a drill required under R13-13-104(D), and
 - c. Perform the operations checks required under R13-13-108(D).
 2. An applicant or school bus driver who is insulin dependent shall obtain the waiver described in A.A.C. R17-5-208.
 3. An applicant shall submit the completed physical examination form and, if applicable, a copy of the waiver required under subsection (B)(2), to the Department through the employer.
 4. The initial physical examination of an applicant, conducted in accordance with the physical examination form, expires 24 months from the date of the physical examination unless a shorter time is specified by the health care professional who administers the physical examination. A school bus driver shall submit to a physical examination before the expiration date of the previous physical examination and send the completed physical examination form to the Department through the employer before the end of the month in which the previous physical examination expires.
 5. If a health care professional determines that further testing of an applicant or school bus driver is needed by an ophthalmologist or optometrist, the health care professional shall refer the applicant or school bus driver to:
 - a. An ophthalmologist licensed under A.R.S. § 32-1401 et seq.,
 - b. An optometrist licensed under A.R.S. § 32-1701 et seq.,
 - c. An ophthalmologist licensed to practice ophthalmology or optometrist licensed to practice optometry by a state contiguous to Arizona, or
 - d. An ophthalmologist licensed to practice ophthalmology or optometrist licensed to practice optometry by any state or territory of the United States and employed by the United States government.
 6. In addition to the physical examinations required by this Article, the Department or the employer may require a physical examination of an applicant or school bus driver for an impairment that would affect the ability to perform the activities listed in subsection (B)(1). The Department or employer shall base its decision to require an additional physical examination upon consideration of the appearance or actions of the applicant or school bus driver or of medical information received by the Department regarding the applicant or school bus driver. The applicant or school bus driver shall submit results of a physical examination conducted under this subsection to the Department through the employer within 30 days of the date of the physical examination.
- C. Controlled substances and alcohol testing**
1. An applicant or school bus driver shall submit to alcohol and controlled substances testing as required by A.R.S. § 28-3228(C)(2) and as prescribed by this Article and 49 CFR 382 October 2006 (no later amendments or editions). The testing shall be conducted in accordance with the procedures at 49 CFR 40 October 2006 (no later amendments or editions), both published at the U.S. Government Printing Office, Superintendent of Documents, Mail Stop: SSOP, Washington, D.C. 20402-9328, incorporated by reference and on file with the Department, except for the changes in 49 CFR 40 and 49 CFR 382 listed in subsections (C)(1)(a) through (C)(1)(i).
 - a. 49 CFR 40.3
 - i. "Employee," means an applicant or a school bus driver as defined at R13-13-101.
 - ii. "Employer" has the same meaning as at R13-13-101.
 - b. 49 CFR 382.107
 - i. "Commercial motor vehicle" has the same meaning as at A.R.S. § 28-3001(3).
 - ii. "Driver" means a school bus driver as defined at R13-13-101.
 - iii. "Employer" has the same meaning as at R13-13-101.
 - iv. "Performing a safety-sensitive function" means any time during which a school bus driver is on-duty except when the school bus driver is being compensated by an entity other than the employer.
 - v. "Safety-sensitive function" means any activity for which a school bus driver is on-duty except when the school bus driver is performing an activity for and being compensated by an entity other than the employer.
 - c. 49 CFR 382.207. In both sentences, the word "four" is changed to "eight."
 - d. 49 CFR 382.301(b), (c), and (d): Delete these subsections.
 - e. 49 CFR 382.303(a) and (b): Change the word "occurrence" to "accident," as defined in R13-13-101, and delete the words "operating on a public road in commerce."
 - f. 49 CFR 382.303(a)(1) and (b)(1): Delete the words " , if the accident involved the loss of human life"
 - g. 49 CFR 382.303(a)(2) and (b)(2): Delete the words " , if the accident involved:"
 - h. 49 CFR 382.303(a)(2)(i) and (ii) and (b)(2)(i) and (ii): Delete these subsections.
 - i. 49 CFR 382.303(c): In the table, in the column headed "Test must be performed by employer," change "No" to "Yes."
 2. In addition to the testing required by 49 CFR 382, an applicant shall submit to testing for the use of marijuana, cocaine, opiates, amphetamines, phencyclidine, benzodi-

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- azepines, barbiturates, methadone, and propoxyphene by a procedure that is generally accepted in the scientific community to be accurate and reliable.
3. In addition to the testing required by 49 CFR 382, a school bus driver shall submit annually to testing for the use of marijuana, cocaine, opiates, amphetamines, phencyclidine, benzodiazepines, barbiturates, methadone, and propoxyphene by a procedure that is generally accepted in the scientific community to be accurate and reliable.
 4. The employer shall ensure that a school bus driver is tested for use of marijuana, cocaine, opiates, amphetamines, phencyclidine, benzodiazepines, barbiturates, methadone, or propoxyphene or alcohol when required to do so by these rules or when requested by the Department.
 5. The employer shall submit any and all negative results of testing done under subsection (C) to the Department within 30 days of the date of testing or within 12 months of the school bus driver's previous test, whichever is sooner, by providing the Department a copy of the report submitted to the employer by the entity that conducted the testing.
 6. The employer shall immediately notify the Department by telephone of any and all positive results of testing done under subsection (C) and shall submit to the Department within five days a copy of the report submitted to the employer by the entity that conducted the testing.
- D. Physical performance test**
1. An applicant shall pass a physical performance test that consists of the following eight standards:
 - a. Climbing and descending the steps of a school bus three times in 30 seconds;
 - b. Alternately activating the throttle and the service-brake system of a school bus 10 times in 10 seconds;
 - c. Depressing and holding the clutch, if applicable, and service-brake system of a school bus for three seconds, five consecutive times;
 - d. Opening and closing a manually operated service door three times without stopping. If the school bus has an automatic service door, operate the manual override of the service door;
 - e. Operating at least two hand controls, one on each side of the steering wheel, within eight seconds while maintaining control of a moving school bus;
 - f. Starting in a seat-belted position, exit a school bus from the rear-most floor-level emergency exit within 20 seconds;
 - g. Carrying or dragging a 125-pound object 30 feet in 30 seconds; and
 - h. Lowering a 30-pound object from a floor-level emergency exit to the ground and lifting the same object from the ground to the school bus floor.
 2. A school bus driver who is certified on the effective date of this subsection shall pass the physical performance test within one year from the effective date of this subsection.
 3. A school bus driver shall pass the physical performance test again no later than 24 months after previously passing the physical performance test.
 4. An applicant or school bus driver who fails the physical performance test may take the test again after 24 hours. An applicant or school bus driver may take the physical performance test no more than three times in 90 days. If an applicant fails the physical performance test on the third attempt, the Department shall not further consider the applicant for certification unless the applicant complies again with the requirements of this Section.
 5. The employer shall ensure that a school bus driver who fails the physical performance test does not operate a school bus until the school bus driver passes the physical performance test.
 6. If a school bus driver takes and fails the physical performance test three times, the Department shall cancel the school bus driver's certification.
 7. An employer shall ensure that the physical performance test is administered by a person who has completed Department-authorized training, using the largest type of school bus that an applicant or school bus driver may be required to operate.
 8. A person who administers the physical performance test shall either pass or fail the applicant or school bus driver taking the test, complete the physical performance test form, and submit the completed form to the Department and the employer within seven days of the physical performance test.
- E. Driving record**
1. During the 24 months before the date of application or during any 24-month period while certified as a school bus driver, an applicant or school bus driver shall not accumulate eight or more points against a driving record in this state using the point system contained in A.A.C. R17-4-404.
 2. During the 10 years before the date of application, an applicant shall not have repeatedly received citations for violation of traffic law.
- F. Training requirements of a school bus driver**
1. Before being certified by the Department as a school bus driver, an applicant shall complete a minimum of 14 hours of classroom training in the following:
 - a. State and federal traffic laws,
 - b. Behind-the-wheel driving operations,
 - c. School bus driver's responsibilities to passengers and school,
 - d. Inspections and operations checks,
 - e. Records and reports,
 - f. Special needs transportation, and
 - g. Accidents and emergencies.
 2. An employer shall ensure that classroom training is taught by a classroom instructor who is qualified under R13-13-103.
 3. At least seven days before classroom training, the classroom instructor shall notify the Department in writing of the date, time, and location of classroom training. The classroom instructor shall notify the Department by any means available at least 24 hours before the date, time, or location of classroom training is changed or canceled.
 4. After completion of classroom training, the classroom instructor shall administer to the applicant a written examination standardized by the Department.
 - a. The written examination shall consist of a combination of 50 true or false, multiple choice, and fill-in-the-blank questions. The examination questions shall cover the topics listed in subsection (F)(1).
 - b. Each question has a value of two points. To pass the examination an applicant shall receive a score that equals or exceeds 80% of the total possible score.
 - c. If an applicant is unable to read or speak English, the employer shall arrange to have the examination administered orally to the applicant in the language with which the applicant is most familiar.
 - d. If an applicant does not pass the examination on the first attempt, the applicant may take an examination two more times within 12 months of the first

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- attempt. A different examination shall be administered to an applicant who is taking an examination for the second or third time. The period between examinations shall be a minimum of 24 hours. If the applicant fails the examination on the third attempt, the applicant shall be considered further only if the applicant complies again with the requirements in this Section.
5. The classroom instructor shall submit the following information in a written report to the Department and the employer within seven days from the date of the conclusion of a classroom training course:
 - a. Instructor's name,
 - b. Instructor's identification number,
 - c. Date of training,
 - d. Location of training,
 - e. Number of hours of training taught by the classroom instructor,
 - f. Each applicant's name, and
 - g. Each applicant's examination score.
 6. In addition to the report required under subsection (F)(5), the classroom instructor shall maintain and submit to the employer within seven days from the conclusion of a classroom training course, a classroom-training course log that includes:
 - a. Instructor's name,
 - b. Instructor's identification number,
 - c. Date of the training course,
 - d. Name of each applicant attending the training course,
 - e. Subject matter taught in each hour, and
 - f. Which hours of training were attended by each applicant.
 7. In addition to the classroom training, an applicant shall complete behind-the-wheel training consisting of a minimum of 20 hours operating a school bus in Arizona.
 - a. An employer shall ensure that behind-the-wheel training is taught by a behind-the-wheel instructor who is qualified under R13-13-103.
 - b. During behind-the-wheel training, a behind-the-wheel instructor shall be present and observing the applicant while the applicant is operating the school bus.
 - c. The employer shall ensure that no one except the applicant, behind-the-wheel instructor, employer, and Department employees are aboard the school bus while the applicant actually operates the school bus.
 - d. The behind-the-wheel instructor shall maintain and submit to the employer within seven days from the conclusion of the applicant's behind-the-wheel training, a behind-the-wheel training log that includes:
 - i. Instructor's name,
 - ii. Instructor's identification number,
 - iii. Applicant's name,
 - iv. Date of each behind-the-wheel training session, and
 - v. Actual number of hours at each training session that the applicant operates a school bus.
 - e. At the conclusion of behind-the-wheel training, the behind-the-wheel instructor shall use a copy of the Proof of Completion of Behind-the-wheel Training and Driving Test form to administer to the applicant the driving test described on the form. The driving test shall measure the applicant's ability to operate a school bus safely and in a manner consistent with state law. The behind-the-wheel instructor shall either pass or fail the applicant and submit the completed form to the Department and the employer within seven days of the driving test.
- G. First aid and cardiopulmonary resuscitation**
1. Before being certified, an applicant shall complete classroom instruction in cardiopulmonary resuscitation and basic first aid. The instruction in cardiopulmonary resuscitation shall include performing cardiopulmonary resuscitation on adults, children, and infants.
 2. The instruction shall be conducted by an individual currently certified as an instructor in first aid and cardiopulmonary resuscitation by a program approved by a nationally recognized organization such as the American Heart Association, American Red Cross, National Safety Council, American Safety and Health Institute, or Arizona Bureau of Mines; by an emergency medical technician licensed in Arizona; or by an agency of the U.S. government.
 3. An applicant shall submit to the Department, through the employer, a copy of the front and back of the first-aid card and cardiopulmonary resuscitation card issued to the applicant or other written documentation as proof of completion of the first-aid and cardiopulmonary resuscitation training.
 4. A school bus driver shall renew first-aid and cardiopulmonary resuscitation training before expiration of the current training. Renewal instruction shall be provided by an individual described in subsection (G)(2). The school bus driver shall submit to the Department, through the employer, a copy of the front and back of the first-aid card and cardiopulmonary resuscitation card or other written documentation as proof of renewal of training.
- H. The Department shall process an application for certification as a school bus driver under R13-13-109.**
- I. Refresher training**
1. A school bus driver shall have refresher training no later than 24 months following completion of the training required by subsection (F). Refresher training shall consist of a minimum of 6 1/2 hours of classroom training in the topics listed in subsection (F)(1).
 2. After completing the first refresher training, the school bus driver shall complete a minimum of 6 1/2 hours of classroom training in the topics listed in subsection (F)(1) every 24 months following the last refresher training.
 3. An employer shall ensure that refresher training is taught by a classroom instructor who is qualified under R13-13-103.
 4. A classroom instructor shall teach refresher training and shall submit the following information in a written report to the Department and the employer within seven days from completion of the refresher training:
 - a. Instructor's name,
 - b. Instructor's identification number,
 - c. Date of training,
 - d. Location of training,
 - e. Number of hours of training taught by the classroom instructor,
 - f. Each school bus driver's name, and
 - g. Each school bus driver's certification number.
 5. In addition to the report required under subsection (I)(4), the classroom instructor shall maintain and submit to the employer within seven days from the conclusion of a refresher training course, a refresher-training course log that includes:
 - a. Instructor's name,

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- b. Instructor's identification number,
 - c. Date of the refresher training course,
 - d. Name and certification number of each school bus driver attending the refresher training course,
 - e. Subject matter taught in each hour, and
 - f. Which hours of refresher training were attended by each school bus driver.
- J. Records**
1. The employer shall maintain qualification and training records of an applicant who is certified and of a school bus driver who terminates employment, and qualification records of an applicant who is denied certification, for 24 months from the date of certification, termination of employment, or denial of certification.
 2. The employer shall maintain records of testing required under subsection (C) in accordance with 49 CFR 382.401, October 2006 (no later amendments or editions), published at the U. S. Government Printing Office, Superintendent of Documents, Mail Stop: SSOP, Washington, D.C. 20402-9328, incorporated by reference, and on file with the Department. In this subsection, "controlled substances," as used in 49 CFR 382.401, means marijuana, cocaine, opiates, amphetamines, phencyclidine, benzodiazepines, barbiturates, methadone, and propoxyphene.
 3. The employer shall transfer the records of a school bus driver to a subsequent employer upon written request by the subsequent employer or school bus driver.
 4. Qualification records include:
 - a. Application,
 - b. Driving record,
 - c. Copy of physical examination form, and
 - d. Physical performance test form.
 5. Training records include:
 - a. A copy of the classroom-training course log required under subsection (F)(6) that shows the applicant's attendance,
 - b. A copy of the refresher-training course log required under subsection (I)(5) that shows the school bus driver's attendance,
 - c. The classroom training examination score,
 - d. The applicant's behind-the-wheel training log,
 - e. The Proof of Completion of Behind-the-wheel Training and Driving Test form,
 - f. A copy of the first-aid card and cardiopulmonary resuscitation card or other written documentation of completion of first-aid and cardiopulmonary resuscitation training, and
 - g. A copy of the school bus driver certification card issued by the Department.
- K. Denial, cancellation, or suspension of certificate**
1. Based on an assessment of the totality of the circumstances, the Department may deny a certificate to an applicant or may cancel or suspend a certificate of a school bus driver for:
 - a. Failing to meet or comply with the requirements of this Article;
 - b. Being convicted of or subject to an outstanding warrant for any felony;
 - c. Being convicted of or subject to an outstanding warrant for any misdemeanor reasonably related to the occupation of a school bus driver including, but not limited to:
 - i. Citation for any moving motor vehicle violation, including but not limited to, violations of A.R.S. § 28-1591 et seq.;
 - ii. Driving under the influence (A.R.S. § 28-1381 et seq.);
 - iii. Any sexual offense (A.R.S. § 13-1401 et seq.);
 - iv. Any abuse of a child (A.R.S. § 13-3623); or
 - v. Use, sale, or possession of a controlled substance (A.R.S. § 13-3401 et seq.).
 - d. Demonstrating behavior that endangers the educational welfare or personal safety of students, teachers, or school bus drivers or other co-workers;
 - e. Providing false, incomplete, or misleading information to the Department;
 - f. Driving or being in actual physical control of a school bus under a circumstance listed in A.R.S. § 28-1381(A);
 - g. Under A.R.S. §§ 28-3301 through 28-3322, having a commercial driver license canceled, suspended, revoked, or denied; or
 - h. Having a verified positive result to any controlled substance or alcohol test required by subsections (C)(1), (2), or (3), at any time.
 2. The Department shall cancel or suspend a certificate of a school bus driver for:
 - a. Having a fingerprint clearance card that is invalid, suspended, canceled or revoked pursuant to A.R.S. § 28-3228 and A.R.S. Title 41, Chapter 12, Article 3.1; or
 - b. Operating a school bus in violation of A.R.S. § 41-1758.03(D) or A.R.S. § 41-1758.07(D) which preclude a person from driving any vehicle to transport employees or clients of the employer as part of the person's employment including students, teachers or other co-workers.
 3. Any conviction, violation, warrant, or other misconduct described in this Section shall be considered, whether or not the school bus driver was operating a school bus at the time of the conviction, violation, warrant, or other misconduct.
 4. An applicant who is denied a certificate or a school bus driver whose certificate is canceled or suspended may request a hearing within 30 days from the date of receipt of the notice of the denial, cancellation, or suspension. The hearing shall be conducted according to the procedures contained in A.R.S. Title 41, Chapter 6, Article 10.
 5. The Department shall inform an applicant who is denied a certificate or a school bus driver whose certificate is canceled or suspended of the amount of time that must elapse before the applicant or the school bus driver may reapply for certification. The Department shall include this information in the notice of denial, cancellation, or suspension and the notice of final order, if any, served on the applicant or school bus driver. In determining the amount of time that must elapse before reapplication, the Department shall consider:
 - a. The seriousness of the offense leading to denial, cancellation, or suspension;
 - b. The frequency with which the offense occurred; and
 - c. The amount of time required to correct the offense.
- L. If a school bus driver is terminated from or leaves employment, the employer shall provide written notice to the Department within 30 days of the termination or leaving. If a school bus driver transfers employment from one employer to a second employer, within 14 days of the transfer the second employer shall provide written notice to the Department of the:**
1. School bus driver's name,
 2. School bus driver's certification number,

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3. Name of the transferring employer, and
4. Effective date of the transfer.

Historical Note

Adopted effective February 16, 1996 (Supp. 96-1). Amended by final rulemaking at 7 A.A.R. 2906, effective June 13, 2001 (Supp. 01-2). Amended by final rulemaking at 11 A.A.R. 557, effective March 5, 2005 (Supp. 05-1). Amended by final rulemaking at 14 A.A.R. 2110, effective May 8, 2008 (Supp. 08-2). New Section R13-13-102 recodified from R17-9-102 with Section cross-references revised, at 20 A.A.R. 2083, effective July 25, 2014 (Supp. 14-3). Amended by final rulemaking at 24 A.A.R. 2306, effective July 24, 2018 (Supp. 18-3).

R13-13-103. Qualification of Classroom and Behind-the-wheel Instructors**A.** To be qualified as a classroom instructor, an individual shall:

1. Submit to the Department through the employer, the following two letters:
 - a. A letter from, signed, and dated by the individual that states the individual's:
 - i. Name, home address, and home phone number;
 - ii. Social Security number;
 - iii. Date of birth;
 - iv. Current employer's name, address, and phone number;
 - v. Dates of all previous letters submitted under this subsection; and
 - b. A letter from the current employer recommending that the individual be considered as a classroom instructor; and
2. Pass a written examination standardized by the Department:
 - a. The written examination shall consist of a combination of 50 true or false, multiple choice, and fill-in-the-blank questions. The examination questions shall cover the topics listed in R13-13-102(F)(1).
 - b. Each question has a value of two points. To pass the examination, an individual shall receive a score that equals or exceeds 90% of the total possible score.
 - c. If an individual taking the written examination is unable to read or speak English, the employer shall arrange to have the examination administered orally in the language with which the individual is most familiar.
 - d. If an individual does not pass the examination, the individual may take a second examination that is different from the first examination.
 - e. If an individual fails to pass the second examination, the individual may receive further consideration by submitting again the letters required by subsection (A)(1) and taking the written examination required by this subsection.
 - f. The employer shall submit each individual's examination score to the Department within seven days from the date of the examination.

B. To remain qualified as a classroom instructor, a classroom instructor shall teach a minimum of 12 hours of classroom or refresher training every 24 months from the date the classroom instructor is first recognized by the Department as qualified.**C.** To be qualified as a behind-the-wheel instructor, an individual shall:

1. Be certified continuously as a school bus driver in Arizona for the 12 months immediately before submitting the letters described in subsection (C)(2) and be

employed as a certified school bus driver at the time of qualification as a behind-the-wheel instructor;

2. Submit to the Department through the employer, the following two letters:

- a. A letter from, signed, and dated by the individual that states the individual's:
 - i. Name, home address, and home phone number;
 - ii. Social Security number;
 - iii. Commercial driver license number;
 - iv. Current employer's name, address, and phone number;
 - v. Dates of all previous letters submitted under this subsection; and
- b. A letter from the current employer recommending that the individual be considered as a behind-the-wheel instructor; and

3. Pass a written examination standardized by the Department.

- a. The written examination shall consist of a combination of 50 true or false, multiple choice, and fill-in-the-blank questions. The examination questions shall cover the topics listed in R13-13-102(F)(1).
- b. Each question has a value of two points. To pass the examination, an individual shall receive a score that equals or exceeds 80% of the total possible score.
- c. If an individual is unable to read or speak English, the employer shall arrange to have the examination administered orally in the language with which the individual is most familiar.
- d. If an individual does not pass the examination, the individual may take a second examination that is different from the first examination.
- e. If an individual fails to pass the second examination, the individual may receive further consideration by submitting again the letters required by subsection (C)(2) and taking the written examination required by this subsection.
- f. The employer shall submit each individual's examination score to the Department within seven days from the date of the examination.

D. To remain qualified as a behind-the-wheel instructor, a behind-the-wheel instructor shall maintain certification as a school bus driver in this state and teach a minimum of 12 hours of behind-the-wheel training every 24 months from the date the behind-the-wheel instructor is first recognized by the Department as qualified.**E.** Records

1. The employer shall maintain the following records for each classroom and behind-the-wheel instructor for 24 months from the date the instructor is first recognized by the Department as qualified.
 - a. Letter submitted under subsection (A)(1)(a) or (C)(2)(a),
 - b. Letter of recommendation submitted under subsection (A)(1)(b) or (C)(2)(b), and
 - c. Examination score.
2. The Department shall maintain the documents required under R13-13-102(F)(5) and (I)(4) for 24 months.

F. The Department shall not recognize an individual as qualified to be a classroom or behind-the-wheel instructor if the individual:

1. Fails to meet or comply with the requirements of this Article;
2. Is convicted of or subject to an outstanding warrant for a felony;

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3. Is convicted of or subject to an outstanding warrant for a misdemeanor reasonably related to the occupation of a school bus driver, including:
 - a. Civil traffic violation (A.R.S. § 28-1591 et seq.);
 - b. Driving under the influence (A.R.S. § 28-1381 et seq.);
 - c. Any sexual offense (A.R.S. § 13-1401 et seq.);
 - d. Any abuse of a child (A.R.S. § 13-3623); or
 - e. Use, sale, or possession of a controlled substance (A.R.S. § 13-3401 et seq.);
 4. Provides false, incomplete, or misleading information to the Department;
 5. Drives or is in actual physical control of a school bus under a circumstance listed in A.R.S. § 28-1381(A); or
 6. Under A.R.S. §§ 28-3301 through 28-3322, has a commercial driver's license canceled, suspended, revoked, or denied.
- G.** If a classroom or behind-the-wheel instructor is terminated from or leaves employment, the employer shall provide written notice to the Department within 30 days of the termination or leaving. If a classroom or behind-the-wheel instructor transfers employment from one employer to a second employer, within seven days of the transfer the second employer shall provide written notice to the Department of the:
1. Name of the classroom or behind-the-wheel instructor,
 2. Identification number of the classroom or behind-the-wheel instructor,
 3. Name of the transferring employer, and
 4. Effective date of the transfer.
- Historical Note**
- Adopted effective February 16, 1996 (Supp. 96-1). Amended by final rulemaking at 7 A.A.R. 2906, effective June 13, 2001 (Supp. 01-2). Amended by final rulemaking at 11 A.A.R. 557, effective March 5, 2005 (Supp. 05-1). Amended by final rulemaking at 14 A.A.R. 2110, effective May 8, 2008 (Supp. 08-2). New Section R13-13-103 recodified from R17-9-103 with Section cross-references revised, at 20 A.A.R. 2083, effective July 25, 2014 (Supp. 14-3).
- R13-13-104. Minimum Standards for School Bus Operation**
- A.** A school bus driver shall perform operations checks of a school bus as required by R13-13-108.
- B.** Loading or unloading of passengers:
1. As of February 16, 1996, an eight-lamp system as described in R13-13-107(17) shall be installed on a school bus before it is introduced into Arizona. When preparing to stop a school bus on a street or highway, the school bus driver shall activate the alternately flashing amber lamps of an eight-lamp system or the alternately flashing red lamps of a four-lamp system for a minimum distance of 100 feet, in accordance with A.R.S. § 28-930(B). Whenever the school bus is stopped on a street or highway to load or unload passengers, the school bus driver shall deactivate the alternately flashing amber lamps and activate the alternately flashing red lamps of an eight-lamp system, and extend the stop arm and open the service door.
 2. When a school bus driver stops the school bus to load or unload passengers, the school bus driver shall set the parking brake and place the transmission in neutral.
 3. The distance between stops for the purpose of loading or unloading passengers shall be no less than 600 feet, unless the school determines that more frequent stops are necessary for safety. The school bus driver shall stop the school bus as near the right edge of the traveled portion of the street or highway as possible.
 4. A school bus driver shall not load or unload passengers on the traffic side of the bus.
 5. When a school bus driver loads or unloads passengers who must cross a street or highway at a location other than an intersection, the passengers shall cross at least 10 feet in front of the front bumper of the school bus. The school bus driver shall not permit passengers who must cross a street or highway to be unloaded from the school bus until all traffic to the front and rear of the school bus is stopped. The school bus driver shall not move the school bus until all passengers have crossed the street or highway.
 6. In intersections that use lighted traffic control signals, a school bus driver shall load or unload passengers no closer than 100 feet of the traffic control signal so the passengers may cross with the traffic control signal, either before or after the school bus proceeds.
 7. In intersections without lighted traffic control signals, a school bus driver shall load or unload passengers no closer than 50 feet of the intersection so the passengers may cross at the intersection, either before or after the school bus proceeds.
 8. A school bus driver shall not stop a school bus on an interstate highway for the purpose of loading or unloading passengers, except that:
 - a. A school bus stop may be established on a frontage road that parallels an interstate highway if no passenger is allowed to cross a divided highway.
 - b. A school bus may stop in a safety rest area as defined by A.R.S. § 28-7901(8) that is part of or adjacent to an interstate highway.
 9. A school bus driver shall load or unload passengers on school grounds only in an area designated by the school and marked with a sign as a school bus loading area.
 10. During loading or unloading of passengers at a designated school bus loading area at a school, the school shall restrict the loading area to school buses, passengers, and school employees assisting in the loading or unloading of passengers.
 11. A school shall allow passengers in a designated school bus loading area only when the passengers are being loaded on or unloaded from a school bus.
 12. A school shall designate all school bus loading areas at locations that prevent backing of the school bus.
 13. In areas at a school not designated as a school bus loading area, a school bus driver shall not back upon or adjacent to the school grounds unless an individual authorized by the school bus driver directs the backing procedure while standing at the rear of the school bus in a position visible to the school bus driver. This provision does not apply to a school bus garage or school bus storage area where passengers are not allowed.
 14. Immediately before a school bus driver engages in backing a school bus, the school bus driver shall sound the horn to warn motorists and pedestrians of the backing procedure. This provision does not apply if the school bus is equipped with an alarm that operates automatically when the school bus is backing.
 15. In addition to the requirements for railroad grade crossings contained in A.R.S. § 28-853, a school bus driver shall comply with the following:
 - a. Use hazard warning lights as described in A.R.S. § 28-947(D) within a minimum of 100 feet of a rail-

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- road grade crossing to warn motorists of an intended stop.
- b. Shut off any radio, compact-disc player, and other source of sound within 50 feet of a railroad grade crossing.
 - c. Stop the school bus, with or without passengers aboard, at a railroad grade crossing when traffic at the railroad grade crossing is not directed by a police officer.
 - d. While stopped at a railroad grade crossing at which traffic is not directed by a police officer, activate the noise suppression switch, completely open the service door and the window to the left of the driver and, by hearing and sight, determine that it is safe to cross. Before proceeding, close the service door. Deactivate the noise suppression switch after crossing the tracks.
 - e. Do not stop to load or unload passengers within 200 feet of a railroad grade crossing. This provision does not prohibit stops at a railroad station or on a highway that parallels the railroad tracks.
16. When a school bus driver loads a wheelchair passenger on a school bus, the school bus driver shall secure both the wheelchair and the wheelchair passenger using the systems described in R13-13-105(E).
- C.** An employer shall not allow or require a school bus driver to drive a school bus nor shall a school bus driver drive a school bus:
1. For more than 10 hours after having been off-duty for a minimum of eight consecutive hours;
 2. For any period after having been on-duty for 15 hours after having been off-duty for a minimum of eight consecutive hours;
 3. After having been on-duty 60 hours in any seven consecutive days if the employer does not operate school buses for seven consecutive days; or
 4. After having been on-duty 70 hours in any eight consecutive days if the employer operates school buses every day of the week.
- D.** Other requirements:
1. A school bus driver shall wear a seat belt whenever the school bus is in motion.
 2. While operating a school bus, a school bus driver shall wear closed-toe, closed-heel shoes that will not interfere with driving the school bus safely or performing other duties of the school bus driver.
 3. A school bus driver shall comply with all state traffic laws while operating a school bus except that the school bus driver shall not exceed 65 miles per hour or the posted speed limit, whichever is less, when operating the school bus on an interstate highway.
 4. Any person boarding or attempting to board a school bus, whether or not a passenger, shall comply with all instructions given by a school bus driver. If a passenger or a non-passenger boards or attempts to board a school bus and refuses to comply with the school bus driver's instructions, the school bus driver may seek emergency assistance to remove the passenger or non-passenger from the school bus, or prevent the passenger or non-passenger from boarding.
 5. All passengers shall sit with their backs against the seat backs, their legs facing towards the front of the school bus, and all parts of their bodies clear of all aisles whenever the school bus is in motion.
 6. A school bus driver shall not transport in a school bus more passengers than the rated capacity stated by the school bus manufacturer.
 7. A school bus driver shall close the service doors of a school bus before operating the school bus. The service doors shall remain closed whenever the school bus is in motion.
 8. A school bus driver shall not place the transmission in neutral or coast with the clutch disengaged on a downhill grade.
 9. The driver of a school bus equipped with a two-speed axle shall not shift the axle while descending any hill posted with grade warning signs.
 10. A school bus driver shall ensure that a school bus is not fueled in a closed building, while the school bus engine is running or while passengers are on board.
 11. A school bus driver or passenger shall not use tobacco in any form on a school bus.
 12. A school bus driver shall not carry on a school bus or consume any beverage containing any alcohol while on-duty with the employer or within eight hours before going on-duty with the employer.
 13. A school bus driver shall not eat or drink on a school bus unless the school bus is completely stopped.
 14. A school bus driver shall not at any time carry on a school bus or use a controlled substance.
 15. A passenger shall not carry on a school bus or consume while being transported in a school bus, any beverage containing any alcohol.
 16. A passenger shall not carry on a school bus or consume while being transported in a school bus, any dangerous or narcotic drug, as defined in A.R.S. § 13-3401, unless:
 - a. A medical practitioner authorized by the state to write a prescription for the dangerous or narcotic drug has prescribed the dangerous or narcotic drug for the passenger who is carrying or consuming it;
 - b. The school district governing board establishes written policies and procedures regarding the administration of a dangerous or narcotic drug by a trained district employee to a passenger who is being transported in a school bus; and
 - c. The parent or legal guardian of a passenger to whom a dangerous or narcotic drug is administered while being transported in a school bus provides prior written authorization for the dangerous or narcotic drug to be administered to the passenger by a trained district employee.
 17. A school bus driver shall not assume responsibility for transporting any medication, whether prescription or over-the-counter, that belongs to a passenger.
 18. A school bus driver shall not transport animals, insects, or reptiles in a school bus with the exception of service animals, as defined at A.R.S. § 11-1024(J), which assist disabled passengers.
 19. Except for eyeglasses, a passenger or school bus driver shall not carry or transport glass objects on a school bus.
 20. A school bus driver or passenger shall not carry on or transport in a school bus an explosive device, gun, knife, or other weapon as defined by school-district policy.
 21. A passenger shall not place any part of the passenger's body out of a school bus window or door except when exiting the school bus.
 22. When instruments or equipment related to musical or athletic events are transported on a school bus, the school bus driver shall transport them as follows:

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- a. Instruments or equipment shall not occupy seating space if needed for a passenger,
 - b. Instruments or equipment shall not be placed in the school bus driver's compartment or step-well of the school bus,
 - c. Instruments or equipment shall be under the passenger's control at all times or secured in the school bus, and
 - d. Instruments or equipment shall not block an aisle or emergency exit of the school bus at any time.
23. A passenger who carries onto a school bus an object other than an instrument or equipment related to musical or athletic events shall control the object at all times or secure the object in the school bus. If the passenger is not able to control or secure the object in the school bus, the passenger shall not carry the object onto the school bus.
 24. A school bus driver shall ensure that all objects inside the school bus are under a passenger's control or secured in a manner that prevents the objects from causing physical injury to others or affecting the safe operation of the school bus.
 25. A school bus driver shall not drive a school bus with a trailer or other vehicle attached to the school bus.
 26. A school bus driver shall stop the school bus and check the wheels and tires for wear, damage, and inflation after every two continuous hours of driving.
 27. All school buses shall have and school bus drivers shall use a two-way voice communication system. The two-way voice communication system shall only be used to assist the school bus driver with passenger transportation.
 28. Except as provided in subsection (D)(27), a school bus driver shall not use audio headsets, earphones, earplugs, Bluetooth devices, cellular phones, personal digital assistants, or other interactive wireless devices, whether or not hands-free, when the school bus is in operation.
 29. Except when complying with R13-13-108(D), if a school bus driver leaves the driver's compartment, the school bus driver shall set the parking-brake system, place a standard transmission in either first or reverse gear, place an automatic transmission in park or neutral, and turn off the ignition and remove the ignition key from an ignition that uses a key, or set the ignition power-deactivation switch of an ignition that does not use a key.
 30. Each time a school bus driver unloads passengers and it appears that no passengers remain on the school bus, the school bus driver shall inspect the interior of the school bus for passengers remaining and objects left on the school bus. If the school bus is equipped with a child alert notification system as described in R13-13-106(6), the school bus driver shall complete all procedures required by the child alert notification system, in addition to the school bus driver's inspection of the interior of the school bus.
 31. At least twice during every school year, a school shall conduct an evacuation drill of a school bus at the school that includes every passenger who rides a school bus and is in school on the day of the evacuation drill. At least 14 days before an evacuation drill, a school shall submit to the Department a written notice stating the date, time, and location of the evacuation drill. Each school bus driver shall participate in a minimum of two evacuation drills during every school year. Evacuation drills shall include:
 - a. Practice and instruction in the location, use, and operation of the emergency exits, fire extinguishers, first aid equipment, windows as a means of escape, and communication systems;
 - b. Practice and instruction in when and how to approach, load, unload, and move away from the school bus a minimum of 100 feet;
 - c. Instructions on how weather-related hazards affect emergency procedures; and
 - d. Instructions on the importance of orderly conduct.
 32. A white, flashing, strobe lamp as described in R13-13-107(17)(f) may be used only during conditions that produce low visibility or that are hazardous.
 33. An owner shall ensure that no lock, except as provided in R13-13-107(10)(h), is installed on any school bus emergency exit or service door.
 34. A school bus driver shall ensure that nothing obstructs or interferes with the use of any school bus emergency exit or service door.
 35. A school bus driver, passenger, or school administrator shall immediately report to the employer any violation of these rules or state statutes that the school bus driver, passenger, or school administrator reasonably believes threatens the health, safety, or welfare of a passenger.
- E. Reports and recordkeeping:**
1. Immediately following any accident involving a school bus, the school bus driver shall report the accident to the employer.
 2. Immediately upon receiving notification of any accident involving a school bus, the employer shall notify the Department of the accident by telephone. The employer shall submit written verification of the accident to the Department within 72 hours of the telephone notification.
 3. Immediately upon becoming aware of a violation of these rules or state statutes that a reasonable person could conclude caused injury to or threatened the health, safety, or welfare of a passenger, the employer shall notify the Department of the violation by telephone. The employer shall submit a written report of the violation to the Department within 72 hours of the telephone notification.
 4. No later than 14 days after an evacuation drill, a school district shall submit to the Department a written report of the evacuation drill identifying the school district, participating school, date, and number of participants.
 5. From the date on which a record is created, the employer shall maintain for three years the following written records for each school bus driver:
 - a. On a daily basis, the period of time each school bus driver is on-duty for the employer including the date, each start and quit time, and the total number of hours on-duty for the employer.
 - b. On a daily basis, the total number of hours on-duty for an entity other than the employer during the previous seven days.
 6. A school bus driver who performs any compensated work for an entity other than the employer shall provide the employer, in writing, the name and telephone number of the entity and the number of hours the school bus driver works each day for the entity.
 7. A school bus driver who receives a citation, whether on-duty or off-duty, shall immediately inform the employer by telephone about the citation and shall submit a copy of the citation to the employer within five days.

Historical Note

Adopted effective February 16, 1996 (Supp. 96-1).
 Amended by final rulemaking at 7 A.A.R. 2906, effective June 13, 2001 (Supp. 01-2). Amended by final rulemaking at 11 A.A.R. 557, effective March 5, 2005 (Supp. 05-1). Amended by final rulemaking at 14 A.A.R. 2110, effective May 8, 2008 (Supp. 08-2). New Section R13-

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13-104 recodified from R17-9-104 with Section cross-references revised, at 20 A.A.R. 2083, effective July 25, 2014 (Supp. 14-3).

R13-13-105. Special Needs Standards**A. General requirements:**

1. A school bus introduced to Arizona on or after May 31, 2008 used for transporting disabled passengers shall comply with the minimum standards applicable to school buses and the specifications contained in this Section. A school bus introduced to Arizona before May 31, 2008 used for transporting disabled passengers shall comply with the minimum standards in this Section or shall be maintained in accordance with the manufacturer's original specifications.
2. Any school bus that is used for transporting a passenger who uses a wheelchair shall be equipped with a wheelchair lift.
3. A wheelchair lift shall be located on the side of the bus body opposite the school bus driver. The wheelchair lift shall not be attached to the exterior sides of the school bus and shall be confined within the school bus body when not extended.
4. Any school bus that is used for transporting disabled passengers shall be equipped with a belt cutter that is accessible only to the school bus driver. The belt cutter shall be secured in a location within reach of the school bus driver while belted into the driver's seat. The school bus may be equipped with additional belt cutters. Additional belt cutters shall be accessible only to the school bus driver or adult aides or attendants.

B. Special-service entrance:

1. A school bus used for transporting disabled passengers shall have a special-service entrance of a width and depth to accommodate a wheelchair lift. The special-service entrance shall have a minimum clear opening of 30 inches horizontally to allow for the passage of a wheelchair.
2. The special-service entrance shall be located on the side of the bus opposite the school bus driver and far enough to the rear of the school bus to prevent the special-service entrance door from obstructing the service door when the special-service entrance door is open.
3. A drip molding shall be installed above the special-service entrance to divert water from the special-service entrance.
4. The frame surrounding the special-service entrance shall provide support and strength at least equal to at the conventional service and emergency doors.

C. Special-service entrance doors:

1. A school bus used for transporting passengers in wheelchairs shall provide a special-service entrance door not to exceed 50 inches in width.
2. Two doors may be used for a special-service entrance on a school bus, if the doors are equipped with a positive latching mechanism to prevent accidental opening.
3. The special-service entrance door shall be constructed to open toward the exterior of the school bus. A Type A school bus is exempt from this provision if its special-service entrance door is provided by the school bus chassis manufacturer.
4. The special-service entrance door shall have a fastening device attached to the school bus body to hold the special-service entrance door in an open position.
5. The special-service entrance door shall be weather-sealed by a waterproof cushion affixed to the door or door frame.

6. Door materials, panels, and structural strength of a special-service entrance door shall be equivalent to the standards contained in R13-13-107 for a service door and an emergency door. Color, rub rail extensions, if installed, lettering, and all exterior features shall match adjacent sections of the school bus body.

7. The window in the special-service entrance door shall be made of safety glass, mounted in a waterproof manner that is equal to the mounting of the other windows, and aligned with the side windows of the school bus.

8. A pressure switch shall be installed in the special-service entrance door frame that will actuate a visible signal located in the school bus driver's compartment when the ignition is in the "on" position to warn the school bus driver when the special-service entrance door is not closed.

9. A switch shall be installed in the special-service entrance door frame so the wheelchair lift will not operate when the special-service entrance door is closed.

D. Wheelchair lift:

1. A wheelchair lift shall be capable of lifting a minimum load of 800 pounds.
2. When the wheelchair-lift platform is raised to the maximum position, it shall be held in position by the wheelchairlift.

3. Controls shall be provided that enable an individual authorized by the school bus driver to activate the wheelchair lift from either inside or outside the school bus.

4. The wheelchair lift shall be equipped so it may be manually raised or lowered in the event of a power failure to the wheelchair lift.

5. The wheelchair lift shall contain a safety device to prevent the wheelchair-lift platform from falling.

6. The wheelchair lift shall be constructed so it allows the wheelchair-lift platform to rest completely on the ground.

7. All edges of the wheelchair-lift platform shall be designed to restrain the wheelchair and prevent the feet of an individual in the wheelchair from becoming caught during the raising or lowering process.

8. A barrier shall be attached along the outer non-loading edges of the wheelchair-lift platform that will prevent the wheelchair from rolling off the wheelchair-lift platform when the wheelchair-lift platform is placed in any position other than completely extended on ground level.

9. A self-adjusting, skid-resistant plate shall be installed on the loading edge of the wheelchair-lift platform to reduce the incline from the wheelchair-lift platform to ground level. This plate shall be used as a restraining barrier on the loading edge of the wheelchair-lift platform. The wheelchair-lift platform shall be skid-resistant.

10. A school bus may be provided with a battery to be used exclusively to operate the wheelchair lift. If a battery is installed for this purpose, an appropriate size circuit breaker meeting the wheelchair lift manufacturer's specifications shall be installed between the battery and the wheelchair lift motor. The circuit breaker shall be located as close to the power source as possible, but not within the school bus driver's compartment.

11. The wheelchair lift shall be equipped with an adjustable switch that limits the electrical power to the wheelchair-lift motor and a bypass valve to prevent pressure from building in the hydraulic system when the wheelchair-lift platform reaches the maximum up or down position.

12. A ramp may be carried on a school bus for use during an occurrence that requires evacuating the school bus. The

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ramp shall not be stored within the passenger compartment of the school bus.

E. Wheelchair and wheelchair-passenger securement:

1. Each wheelchair in a school bus shall be secured in a forward-facing position. Medical equipment and supplies required to accommodate a disabled passenger shall be secured in a school bus by means of alterations approved by the Department in accordance with R13-13-108(G).
2. Each wheelchair-securement system location in a school bus shall have a minimum clear floor area of 30 inches in width from the interior school bus wall to the aisle and a minimum of 48 inches in length. A wheelchair shall not be placed in a position that prevents passage through the special-service entrance.
3. Each wheelchair-securement system shall have four full-length tracks, with an L-track four-point tie-down configuration.
4. The wheelchair-securement system shall provide a minimum of four wheelchair-securement anchorages attached to the school bus floor with a minimum of two anchorages located at the rear of the space designated for a wheelchair and a minimum of two anchorages located at the front of the space.
5. The wheelchair-securement system shall provide a minimum of one wheelchair-securement device located in each of the rear anchorages and a minimum of one wheelchair-securement device located in each of the front anchorages.
6. A wheelchair space shall have a minimum of one wheelchair-passenger shoulder restraint anchorage attached to the interior wall of the school bus and a minimum of two wheelchair-passenger restraint anchorages located at the rear of the space.
7. Each wheelchair space shall have one wheelchair-passenger restraint. A school bus equipped with a wheelchair-passenger restraint shall have the following information available on the school bus:
 - a. A telephone number where information may be obtained about installation, repair, and parts; and
 - b. Instructions regarding use of the restraint, including a diagram showing the proper placement of the wheelchair and positioning of securement devices and occupant restraints, including correct belt angles.

F. Dome light: A dome light shall be placed in the interior ceiling of the school bus to illuminate the wheelchair lift area. The dome light shall be activated by a pressure switch located in the special-service entrance door or by a manually operated switch located in the interior of the school bus no more than one foot from the special-service entrance door. This switch shall be used exclusively for the dome light.

G. Aisles: All aisles leading to an emergency door from any wheelchair space shall be a minimum of 30 inches in width. The emergency door opening shall be a minimum of 30 inches in width.

H. Seating arrangements: All fixed seats in a special-needs school bus shall be forward facing.

I. Emblems: A school bus used for transporting disabled passengers shall display two International Symbol of Accessibility emblems. One emblem shall be placed below the upper window on the emergency door or below the window on the special-service entrance door, and the second emblem shall be placed below the windshield on the side of the bus or on the bumper opposite the school bus driver. The emblems shall be made of blue, reflective material and be a minimum of 6 inches and a maximum of 12 inches in width and height and

shall contain a reflective white wheelchair impression with a minimum of 1/8 inch reflective white border around the outer edges of the emblems.

J. Types A and B school buses used to transport disabled passengers shall comply with the specifications contained in this Section except:

1. A ramp may be installed in place of a wheelchair lift;
2. If a ramp is used, it shall be of a strength and rigidity to support a wheelchair, passenger, and an individual attending the wheelchair passenger. The ramp shall be equipped with a barrier on each longitudinal side to prevent the wheelchair from leaving the ramp;
3. The floor of the ramp shall be covered with nonskid material; and
4. A ramp shall not be carried in the passenger compartment of a school bus.

Historical Note

Adopted effective February 16, 1996 (Supp. 96-1). Amended by final rulemaking at 7 A.A.R. 2906, effective June 13, 2001 (Supp. 01-2). Amended by final rulemaking at 14 A.A.R. 2110, effective May 8, 2008 (Supp. 08-2). New Section R13-13-105 recodified from R17-9-105 with Section cross-references revised, at 20 A.A.R. 2083, effective July 25, 2014 (Supp. 14-3). Amended by final rulemaking at 21 A.A.R. 3211, effective January 24, 2016 (Supp. 15-4).

R13-13-106. Minimum Standards for School Bus Chassis

The chassis of a school bus introduced to Arizona on or after May 31, 2008 shall meet the requirements of this Section. The chassis of a school bus introduced to Arizona before May 31, 2008 shall meet the requirements of this Section or shall be maintained in accordance with the manufacturer's original specifications.

1. Air cleaner: An engine intake air cleaner shall be installed in the school bus that meets engine specifications defined by the school bus manufacturer.
2. Axles: The front and rear axles and suspension assemblies shall have a gross axle weight rating consistent with that stated by the chassis manufacturer on a notice located in the school bus driver's compartment.
3. Back-up alarm: If installed, an alarm that emits a warning sound when the school bus is backing shall conform to the following:
 - a. The alarm-signaling device shall be of electronic, solid state design and shall emit an audible sound of a minimum of 97 dB(A) measured at 4 feet, 0° access from the source of the sound.
 - b. The alarm-signaling device shall be wired into the backup light circuits and shall emit sound automatically when the gear shift lever is in "reverse" position.
 - c. The alarm-signaling device shall be attached to the school bus chassis or body behind the rear axle.
4. Brakes:
 - a. A school bus with a manufacturer-designed passenger capacity of 60 or less shall be equipped with a service-brake system that uses compressed air or hydraulic assist.
 - b. A school bus with a manufacturer-designed passenger capacity greater than 60 shall be equipped with a service-brake system that uses compressed air.
 - c. In addition to the service-brake system, a school bus shall be equipped with a parking-brake system to keep the school bus from moving when parked.

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- d. The service brakes in a compressed-air system shall be adjusted using the following criteria:

Type	Outside Diameter of Air Chamber	Brake Adjustment Limit
6	4 1/2 inches	1 1/4 inches
9	5 1/4 inches	1 3/8 inches
12	5 11/16 inches	1 3/8 inches
16	6 3/8 inches	1 3/4 inches
20	6 25/32 inches	1 3/4 inches
24	7 7/32 inches	1 3/4 inches
30	8 3/32 inches	2 inches
36	9 inches	2 1/4 inches

- e. The service brakes in a "long stroke" clamp type brake system shall be adjusted using the following criteria:

Type	Outside Diameter of Air Chamber	Brake Adjustment Limit
12	5 11/16 inches	1 3/4 inches
16	6 3/8 inches	2 inches
20	6 25/32 inches	2 inches
24	7 7/32 inches	2 inches
24*	7 7/32 inches	2 1/2 inches
30	8 3/32 inches	2 1/2 inches

*For 3" maximum stroke type 24 chambers

- f. The service-brake system in a compressed-air system shall contain an emergency-brake system that will activate when the air loss in the service-brake system reaches 20 to 40 pounds per square inch.
- g. A school bus using a compressed-air or hydraulic-assist service-brake system shall be equipped with a signal located in the school bus driver's compartment that emits a continuous audible or visible warning to the school bus driver when:
 - i. The air pressure available in a compressed-air braking system is 60 pounds per square inch or less, or
 - ii. There is a loss of fluid flow from the main hydraulic pump or loss of electric source powering the back-up system in a hydraulic-assist system.
- h. A school bus using a compressed-air service-brake system shall be equipped with one or two illuminated gauges located in the school bus driver's compartment that show the pounds per square inch of compressed air available for the operation of the brake.
- i. A compressed-air brake system with a dry reservoir shall have a one-way valve that will prevent the loss of compressed air between the dry reservoir and the source of compressed air.
- j. A brake system with a wet reservoir shall have a valve located at the bottom of the wet reservoir that operates automatically or can be operated remotely or manually to eject the moisture from the reservoir.
- k. Compressed-air or hydraulic-assist brake lines and booster-assist lines shall be installed in a manner that prevents heat, vibration, and chafing damage.
- l. The brake systems of Types C and D school buses shall be installed so the chassis components can be

- visually inspected to detect brake lining wear without removal of any of the chassis components.
- 5. Front bumper: The front bumper shall be positioned at the forward-most part of the school bus and extend to the outer edges of the school bus.
- 6. Child alert notification system: A school bus may be equipped with an electronic or mechanical child alert notification system. If a school bus is equipped with a child alert notification system, the device shall be installed in a manner that does not interfere with any other existing operating or electrical component. A child alert notification system in a school bus shall not have an override or bypass capability.
- 7. Clutch: The clutch torque capacity shall be equal to or greater than the engine torque output.
- 8. Color: The chassis, including wheels and front bumper, shall be painted black. The hood and fenders shall be painted National School Bus Yellow as described in R13-13-107(6).
- 9. Cooling system: A school bus shall be equipped with a cooling system that maintains the engine temperature operating range required to prevent damage to the school bus engine.
- 10. Drive shaft: Each section of the drive shaft to the rear driving axle shall be protected by a metal guard around its circumference to reduce the possibility of the drive shaft penetrating through the school bus floor or dropping to the ground.
- 11. Electrical system:
 - a. Battery:
 - i. The battery shall have a minimum cold-cranking capacity rating equal to the cranking current required by the engine for 30 seconds at 0° F. and a minimum reserve capacity rating of 120 minutes at 25 amperes.
 - ii. The battery shall have a higher capacity than specified in subsection (11)(a)(i) if optional equipment installed on the school bus requires the higher capacity.
 - iii. Because all batteries are to be secured in a sliding tray in the bus body as required by R13-13-107, chassis manufacturers shall mount batteries temporarily on the chassis frame, except that a van conversion or cutaway front-section chassis may be secured in accordance with the manufacturer's standard configuration. However, in all cases the battery cable provided with the chassis shall have sufficient length to allow some slack, and shall be of sufficient gauge to carry the required amperage.
 - b. Alternator:
 - i. All alternators shall conform to the recommended practices of Standard J180, January 2002 (no later amendments or editions) published by the Society of Automotive Engineers, Inc., 400 Commonwealth Drive, Warrendale, PA 15096-0001, which is incorporated by reference and on file with the Department.
 - ii. All Type A-2 and Type B buses with a GVWR of 15,000 pounds or less shall have an alternator with a minimum of 130 amps.
 - iii. All Type A-2 and Type B buses with a GVWR over 15,000 pounds, and all Type C and D buses shall be equipped with a heavy-duty truck or bus-type alternator meeting Standard J180, which is incorporated by reference in

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- subsection (b)(i), having a minimum output rating of 130 amps, and shall produce a minimum current output of 50% of the rating at engine idle speed. The alternator may be either pad-mounted or hinge-mounted.
- iv. Buses equipped with an electrically powered wheelchair lift or air conditioning may be equipped with a device that monitors the electrical system voltage and advances the engine idle speed when the voltage drops to, or below, a pre-set level.
 - v. A belt-driven alternator shall be capable of handling the rated capacity of the alternator with no detrimental effect on any other driven components.
 - vi. A direct-drive alternator may be installed instead of a belt-driven alternator.
 - vii. If the school bus is equipped with an air conditioning system, the alternator shall have a minimum charging rate of 160 amperes per hour.
 - viii. The alternator on a school bus shall contain a regulator to control the voltage to the battery.
- c. Wiring:
- i. All wiring shall conform to the recommended practices of Standard J1292, October 1981 (no later amendments or editions), published by the Society of Automotive Engineers, Inc., 400 Commonwealth Drive, Warrendale, PA 15096-0001, incorporated by reference and on file with the Department.
 - ii. All wiring shall use a standard color or number coding and each chassis shall contain a wiring diagram that details the wiring of the chassis.
 - iii. The chassis shall be equipped with a connection to provide electrical power to the school bus. The connection shall be located on the chassis cowl or on the engine compartment of a school bus designed without a chassis cowl. The connection shall contain terminals for the main 100 ampere body circuit, tail lamps, right-turn signal, left-turn signal, stop lamps, backup lamps, and instrument panel lights. The instrument panel lights shall have a rheostat control.
12. Engine horsepower: The gross vehicle weight rating of a school bus shall not exceed 185 pounds for each engine horsepower as published by the manufacturer on a notice located on the school bus engine.
 13. Exhaust system:
 - a. The exhaust pipe, muffler, and tailpipe shall be located under the school bus body and attached to the chassis.
 - b. The tailpipe shall be constructed of a corrosion-resistant tubing material at least equal in strength and durability to 16-gauge steel tubing.
 - c. The exhaust system on a gasoline-powered chassis shall be insulated from the fuel tank and fuel tank connections by a shield at any point where the exhaust system is 12 inches or less from the fuel tank or fuel tank connections.
 14. Frame:
 - a. A school bus frame shall be of a design and strength capable of supporting the gross vehicle weight of the school bus.
 - b. A school bus frame shall not be altered for any purpose.
 - c. Holes in top or bottom flanges of frame rails are not permitted except as provided by the manufacturer. There shall be no welding to the frame rails except by the chassis or body manufacturer or the manufacturer's certified agent.
 - d. The school bus frame shall not be cracked, loose, sagging, or broken.
 - e. Brackets securing the cab or the body of the school bus to the frame shall not be loose, broken, or missing.
 - f. The frame rail flanges shall not be bent, cut, or notched, except as specified by the manufacturer.
 - g. All accessories mounted to the school bus shall be secured as specified by the manufacturer.
 - h. Holes shall not be drilled in the top or bottom rail flanges, except as specified by the manufacturer.
 15. Front fenders of a Type C school bus: The outer edges of the front fenders shall be wider than the outer edges of the front tires when the front wheels are in the straight-ahead position.
 16. Fuel system:
 - a. The fuel tank shall be vented to the outside of the school bus body so fuel spillage will not contact any part of the exhaust system.
 - b. On a Type B, Type C, or Type D school bus, no portion of the fuel system that is located outside of the engine compartment, except the filler tube, shall extend above the top of the chassis frame.
 - c. A fuel filter with replaceable element shall be installed between the fuel tank and engine.
 - d. The fuel line that supplies fuel to the engine shall be located at the top of the fuel tank.
 17. Horn: A school bus shall be equipped with at least one horn capable of producing a sound level between 82 and 102 dB(A) when tested according to the Standard J377, March 2001 (no later amendments or editions) published by the Society of Automotive Engineers, Inc., 400 Commonwealth Drive, Warrendale, PA 15096-0001, incorporated by reference and on file with the Department.
 18. Instruments and instrument panel:
 - a. The chassis shall be equipped with the following instruments:
 - i. Speedometer;
 - ii. Odometer that will give accrued mileage to seven digits, including tenths of miles;
 - iii. Voltmeter or ammeter;
 - iv. Oil pressure gauge;
 - v. Water temperature gauge;
 - vi. Fuel gauge;
 - vii. Upper beam head lamp indicator;
 - viii. Brake system signal as required by R13-13-106(4)(f);
 - ix. Turn signal indicator; and
 - x. Air pressure or hydraulic gauge.
 - b. The instruments shall be mounted on the instrument panel in the school bus driver's compartment and visible to the school bus driver while seated in the driver's seat.
 - c. The instrument panel shall be equipped with a rheostat switch that controls the illumination to the instrument panel and the gear shift selector indicator.
 19. Oil filter: A replaceable element or cartridge-type oil filter shall be provided with a minimum capacity that meets or exceeds the capacity recommended by the manufacturer of the school bus engine.

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- 20. Openings: All openings in the floorboard and in the fire wall between the chassis and passenger compartment shall be sealed.
- 21. Splash guards:
 - a. A school bus shall be equipped with rear fender splash guards constructed of flexible rubberized material.
 - b. The splash guards shall be wide enough to cover the tire tread width, installed close enough to the tire tread surface to control side-throw of road surface material, and extend to within 8 inches of ground level.
- 22. Steering system:
 - a. Power steering is required on all school buses manufactured after January 1, 1984.
 - b. Bracing extending from the center of the steering wheel to the steering wheel ring shall not be cracked or missing.
 - c. The distance of movement of the steering wheel between two points of resistance shall not be greater than the following when measured with the engine running:

Steering wheel diameter	Power steering	Manual steering
16 in. or less	6 3/4 inches	4 1/2 in.
18 in.	7 1/8 inches	4 3/4 in.
20 in.	7 7/8 inches	5 1/4 in.
22 in.	8 5/8 inches	5 3/4 in.
 - d. There shall be clearance of at least 2 inches between the steering wheel and any object in the driver's compartment.
 - e. A non-adjustable steering column shall be fastened in a fixed position. An adjustable steering column shall be equipped with a locking mechanism.
 - f. The steering gear housing shall not have loose or missing mounting bolts. There shall not be cracks in the gear housing or its mounting brackets.
 - g. The connecting arm on the steering gear power source shall not be loose.
 - h. The steering wheel shall turn freely in both directions.
 - i. The steering system shall have a means for lubrication of all wear-points.
- 23. Suspension:
 - a. Shock absorbers:
 - i. A school bus shall be equipped with front and rear double-acting shock absorbers. Replacements to shock absorbers shall be made according to the specifications of the manufacturer's part number as stamped on the shock absorber.
 - ii. If a school bus is manufactured with tandem rear axles, rear shock absorbers are not required.
 - b. Suspension system:
 - i. Capacity of suspension assemblies shall be commensurate with the chassis manufacturer's gross vehicle weight rating.
 - ii. If leaf-type rear springs are used, they shall be a progressive rate or multi-stage design.
- 24. Tires and wheels:
 - a. Tires and wheels shall have an accumulated load rating at least equal to the gross vehicle weight rating.
 - b. Dual rear tires shall be provided on all school buses that have a gross vehicle weight rating of more than 10,000 pounds.

- c. Each tire on a particular axle shall be the same size.
- d. All tires on a school bus shall be bias or all tires on a school bus shall be radial and shall not differ more than one size between front and rear axles.
- e. On a Type C or D school bus, a spare tire, if present, shall be in a carrier mounted outside the passenger compartment.
- 25. Transmission: The school bus transmission shall have no fewer than three forward speeds and one reverse speed.
- 26. Turning radius:
 - a. A chassis with a wheelbase of 264 inches or less shall have a right and left turning radius of not more than 42 1/2 feet, as measured to the edge of the front tire at the outside of a circle as the school bus moves within the circle.
 - b. A chassis with a wheelbase of more than 264 inches shall have a right and left turning radius of not more than 44 1/2 feet, as measured to the edge of the front tire at the outside of a circle as the school bus moves within the circle.
- 27. Weight:
 - a. The gross vehicle weight of a school bus shall not exceed the chassis manufacturer's gross vehicle weight rating for the chassis as recorded on a notice located in the school bus driver's compartment.
 - b. To calculate the gross vehicle weight of a school bus, add the chassis weight, the school bus body weight, the school bus driver's weight, and the total seated passenger weight.
 - i. For the purpose of calculation, the school bus driver's weight is 150 pounds.
 - ii. For the purpose of calculation, the passenger weight is 120 pounds per seated passenger.
 - c. The weight distribution of a school bus on a level surface that is fully loaded according to the gross vehicle weight rating shall not exceed the front axle gross weight rating or rear axle gross weight rating as recorded on a notice located in the school bus driver's compartment.

Historical Note

Adopted effective February 16, 1996 (Supp. 96-1). Amended by final rulemaking at 7 A.A.R. 2906, effective June 13, 2001 (Supp. 01-2). Amended by final rulemaking at 14 A.A.R. 2110, effective May 8, 2008 (Supp. 08-2). New Section R13-13-106 recodified from R17-9-106 with Section cross-references revised, at 20 A.A.R. 2083, effective July 25, 2014 (Supp. 14-3). Amended by final rulemaking at 21 A.A.R. 3211, effective January 24, 2016 (Supp. 15-4). Amended by final expedited rulemaking at 24 A.A.R. 2267, effective July 24, 2018 (Supp. 18-3).

R13-13-107. Minimum Standards for School Bus Body

The body of a school bus introduced to Arizona on or after May 31, 2008 shall meet the requirements of this Section. The body of a school bus introduced to Arizona before May 31, 2008 shall meet the requirements of this Section or shall be maintained in accordance with the manufacturer's original specifications.

- 1. Air conditioning system: The school bus may be installed with an air conditioning system. If installed, the air conditioning system shall:
 - a. Be of a mechanical vapor compression refrigeration type;
 - b. Be manufactured to conform to the requirements of Standard J639, June 2005 (no later amendments or editions) published by the Society of Automotive Engineers, Inc., 400 Commonwealth Drive, Warren-

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- dale, PA 15096-0001, incorporated by reference and on file with the Department;
 - c. Have sufficient power for simultaneous cooling, circulating, and dehumidifying the air;
 - d. Be provided with refrigerant that is nontoxic, non-flammable, and non-explosive;
 - e. Have all power and grounding installed according to the manufacturer’s specifications; and
 - f. Have exhaust system exit from the rear of the vehicle, and extend to, but not more than 2 inches beyond the outer edge of the rear bumper.
2. Aisle:
- a. The center aisle of a school bus shall have a clearance of not less than 12 inches at the bottom of the seat cushion, increasing to 15 inches at the top of the seat backs.
 - b. Aisles to side emergency doors shall have a minimum clearance of 12 inches which may be achieved by using flip-up type seats.
3. Auxiliary fan:
- a. An auxiliary fan, if installed, shall be placed in a location that does not obstruct the school bus driver’s view of any mirror located on the school bus.
 - b. An auxiliary fan, if installed, shall have a 6-inch nominal diameter, with the fan blades covered by a protective cage.
 - c. Each installed auxiliary fan shall be controlled by a switch that is independent of any other electrical system.
4. Battery:
- a. A battery shall be secured to a slide-out or swing-out tray in a vented compartment in the school bus body, so the battery is accessible to the outside for servicing. If the battery compartment has a door that is not removable, the door shall be secured by a fastening device when the door is in a closed position. If the battery compartment has a removable cover, the cover shall be secured by a fastening device when the cover is in place.
 - b. The word “Battery” shall be printed in unshaded black letters that are no more than 2 inches in height on the battery-compartment door or cover or immediately above the battery-compartment door or cover.
 - c. Buses with a battery located under the engine hood are exempt from these provisions.
5. Belt cutter: A school bus with passenger seat belts shall be equipped with a belt cutter having a full width hand-grip and a protected, replaceable or non-corrodible blade. The belt cutter shall be mounted in a location accessible to the seated driver, and in an easily detachable manner. The belt cutter shall be accessible only to the school bus driver.
6. Color:
- a. A school bus body shall be painted National School Bus Yellow according to the following specifications and tolerances:

Description	Reflectance		Chromaticity	
	Y	X	Y	X
Centroid	41.5%	.5139	.4434	
V+ Light Limit	42.9%	.5139	.4427	
V- Dark Limit	39.8%	.5133	.4422	
H+ Green Limit	41.6%	.5123	.4368	

- | Description | Reflectance | | Chromaticity | |
|----------------|-------------|-------|--------------|---|
| | Y | X | Y | X |
| H- Red Limit | 41.7% | .5168 | .4489 | |
| C+ Vivid Limit | 41.5% | .5188 | .4457 | |
| C- Weak Limit | 41.5% | .5095 | .4405 | |
- b. The bumpers, lamp hoods, lettering, and rub rails on a school bus body shall be black.
7. Crossing control arm:
- a. A school bus may be equipped with a crossing control arm. If installed, all components and all connections of the crossing control arm shall:
 - i. Meet the requirements set forth in Standard J1133, November 2004 (no later amendments or editions) published by the Society of Automotive Engineers, Inc., 400 Commonwealth Drive, Warrendale, PA 15096-0001, incorporated by reference and on file with the Department;
 - ii. Be mounted on the right side of the front bumper;
 - iii. When opened, extend in a line parallel to the body side and aligned with the right side wheel;
 - iv. Be weatherproofed;
 - v. Incorporate system connectors (electrical, vacuum, or air) at the gate and be easily removable to allow for towing of the school bus;
 - vi. Be constructed of non-corrodible or nonferrous material, or treated in accordance with the school bus body sheet metal specification;
 - vii. Have no sharp edges or projections that could cause injury or be a hazard to students;
 - viii. Be rounded at the end of the crossing control arm;
 - ix. Extend approximately 70 inches (measured from the bumper at the arm assembly attachment point) when in the extended position;
 - x. Not extend past the end of the bumper when in the stowed position;
 - xi. Extend simultaneously with the stop signal arm, activated by the stop signal arm control; and
 - xii. Include a device attached to the bumper near the end of the arm to automatically retain the arm while in the stowed position. The device shall not interfere with the normal operations of the crossing control arm.
 - b. An automatic recycling interrupt switch may be installed for temporarily disabling the crossing control arm.
8. Defrosters:
- a. Defrosting and defogging equipment shall direct a flow of heated air onto the windshield, the window to the left of the driver, and the glass in the viewing area directly to the right of the driver to eliminate frost, fog, and snow.
 - b. The defrosting system shall conform to Standards J381 September 2000 (no later amendments or editions) and J382, September 2000 (no later amendments or editions), both published by the Society of Automotive Engineers, Inc., 400 Commonwealth Drive, Warrendale, PA 15096-0001 incorporated by reference and on file with the Department.
 - c. An auxiliary fan shall not to be used in place of a defrosting and defogging system.

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- d. A portable heater shall not be used in place of a defrosting or defogging system.
9. Electrical wiring:
- a. All electrical wiring on a school bus shall conform to the standards contained in Standard J1292, October 1981 (no later amendments or editions), published by the Society of Automotive Engineers, Inc., 400 Commonwealth Drive, Warrendale, PA 15096-0001 and incorporated by reference and on file with the Department.
 - b. Electrical wiring that is coded by color shall be coded as follows:
 - i. Left Rear Directional Light: Yellow
 - ii. Right Rear Directional Light: Dark Green
 - iii. Stoplights: Red
 - iv. Back-up Lights: Blue
 - v. Taillights: Brown
 - vi. Ground: White
 - vii. Ignition Feed, Primary Feed: Black
 - c. Circuits: Electrical wiring circuits shall be protected by a fuse, circuit breaker, or Field Effect Transistor and shall be coded by number or color on an electrical wiring diagram located in the driver's compartment or the electrical access panel door. There shall be at least seven circuits as follows:
 - i. Head, tail, stop, and instrument panel lamps;
 - ii. Clearance and step-well lamps;
 - iii. Dome lamps;
 - iv. Ignition and emergency door signal;
 - v. Turn signal lamps;
 - vi. Alternately flashing signal lamps; and
 - vii. Heaters and defrosters.
 - d. All electrical wires passing through metal openings shall be protected by a non-metal grommet.
 - e. Electrical wires not enclosed within the school bus body shall be fastened at intervals of not more than 18 inches.
10. Emergency exits: A door, push-out window, or roof hatch used as an emergency exit shall conform to the following:
- a. On the inside and outside of a school bus, the words "EMERGENCY EXIT" or "EMERGENCY DOOR" shall be printed in black, unshaded letters at least 2 inches high above an emergency door or push-out window and at least 1 inch high on a roof hatch.
 - b. Each emergency exit shall open toward the exterior of the school bus and shall be labeled within 6 inches of the interior release mechanism with black lettering at least 3/8 of an inch high instructing how the exit is to be opened.
 - c. On a Type A school bus with double rear doors used as emergency exits, the rear doors shall be secured with upper, center, and lower latches to the door frame.
 - d. The upper portion of each door used as an emergency exit shall be equipped with a window made of safety glass with an area not less than 400 square inches. A door located in the rear end of the school bus used as an emergency exit shall also contain a lower window panel of safety glass of not less than 350 square inches. A Type A school bus that contains double rear doors used as emergency exits is exempt from this provision.
 - e. There shall be no steps on the outside of the school bus leading to an emergency exit.
 - f. A header pad filled with a material to protect against injury shall be attached to the top edge of the frame of a door used as an emergency exit. The header pad shall be a minimum of 3 inches wide and 1 inch thick and extend the full width of the door opening.
 - g. Each emergency exit shall be equipped with a latch that opens from the inside of the school bus and is connected to an electrical buzzer audible in the driver's compartment that actuates when the latch is being released.
 - h. Except for interlock/barrel bolt devices, if a lock is installed on an emergency exit, the lock shall be secured only by using a key and shall deactivate the ignition system of the school bus when locked.
11. Emergency equipment:
- a. All emergency equipment shall be mounted in the driver's compartment or adjacent to either side of the service entrance and shall be readily accessible. If the emergency equipment is mounted within a closed compartment, the compartment shall be clearly labeled as containing the emergency equipment.
 - b. Fire extinguisher:
 - i. A school bus shall be equipped with a minimum of one 5-pound pressurized, dry, chemical fire extinguisher of a type rated not less than 2A-10-BC by the Underwriter's Laboratories, Inc., as described by the National Fire Protection Association, Inc., One Batterymarch Park, Quincy, MA 02269, in NFPA 10: Standard for Portable Fire Extinguishers, published in 2006 (no later amendments or editions), incorporated by reference and on file with the Department.
 - ii. A pressure gauge shall be mounted on the fire extinguisher to be readable in its mounted position.
 - iii. The operating mechanism of the fire extinguisher shall be sealed with a type of seal that will not interfere with the use of the fire extinguisher.
 - c. Warning devices: A school bus shall have a minimum of three reflective triangle road-warning devices that comply with the standards at 49 CFR 571.125, October 2006 (no later amendments or editions), published by the U.S. Government Printing Office, Superintendent of Documents, Mail Stop: SSOP, Washington, D.C. 20402-9328, incorporated by reference and on file with the Department.
12. Floor:
- a. The floor beneath the seats, including the tops of the wheel housings and the floor in the driver's compartment, shall be covered with fire-resistant floor-covering material having a minimum overall thickness of .10 inch.
 - b. The aisle floor shall be covered with a fire-resistant ribbed or non-skid floor-covering material with a minimum thickness of .10 inch.
 - c. The floor-covering material shall be bonded to the floor with a waterproof adhesive and shall not crack when subjected to changes in air temperature.
13. Handrail: A handrail at a school bus service entrance shall be secured to the school bus wall in a manner that causes the crevice formed by the distance between the handrail and the wall to pass the inspection procedure described by the National Highway Traffic Safety Administration, Washington, D.C. 20590, in School Bus

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Safety Assurance Program Recall Listing: January 1991 Through June 1996 (no later amendments or editions), incorporated by reference and on file with the Department.

14. Heating system:
 - a. Heaters shall be of the hot-water type.
 - b. The heating system shall be capable of maintaining bus interior temperatures as specified in the procedure set forth in Standard J2233, June 2002 (no later amendments or editions), published by the Society of Automotive Engineers, Inc., 400 Commonwealth Drive, Warrendale, PA 15096-0001, incorporated by reference and on file with the Department.
 - c. A minimum of one heater shall be a fresh-air or combination fresh-air and recirculating-air type.
 - d. If more than one heater is used, additional heaters may be of recirculating-air type.
 - e. All heater hoses shall be secured in all areas of the school bus body and chassis to prevent wear due to vibration. Heater lines in the interior of the bus shall be covered by a protective shield to prevent scalding of the driver or passengers.
 - f. Except on Type A school buses, the heater system shall include shutoff valves installed at the engine in the water pressure lines and return lines.
15. Identification:
 - a. Only signs, lettering, and objects approved by state law or these rules shall appear on the interior or exterior of a school bus, including all glass areas.
 - b. Each school bus owned by a school or a private company shall display either the name of the school and school number, if any, or the name of the private company on each exterior side of the school bus between the rub rails at the center line and seat cushion levels in black unshaded letters that are at least 5 inches in height. Additionally, a school bus owned by a private company that displays the name of the school and school number as described above, may display the company's name on each exterior side of the school bus below the floor line in black unshaded letters that are a maximum of 2 inches in height.
 - c. An identification number assigned to a school bus by an owner shall be placed on the front and rear bumpers of the school bus and on each exterior side of the school bus below the floor line rub rail and forward of the centerline of the school bus. The identification number on each bumper shall be National School Bus Yellow. The identification number on each exterior side shall be black. Each identification number shall be a minimum of 5 inches in height.
 - d. In addition to an identification number, a school bus may be identified by an emblem placed on the loading side of the front bumper or the exterior wall of the loading side below the floor line rub rail and forward of the center line of the school bus, or both. The emblem shall be painted or decaled on or attached to a magnetic backing.
 - e. In addition to an identification number, a school bus may display a route identification sign. If displayed, the route identification sign shall:
 - i. Be installed with a heavy duty Velcro, magnetic, screw-type or similar fixture;
 - ii. Be a minimum of 5 inches in height; and
 - iii. Be located on a flat surface of the bus body, excluding glass.
16. Interior: If the ceiling is constructed with overlapping panels, the first panel placed in the ceiling shall be overlapped by the following panel and each panel shall consecutively overlap to the rear end of the school bus. Exposed edges in the interior of the school bus shall be beaded, hemmed, flanged, or rounded to eliminate sharp edges.
17. Lamps and signals:
 - a. All lamps on the exterior of a school bus shall conform to the provisions contained in 49 CFR 393.9 et seq. of the Federal Motor Carrier Safety Regulations, October, 2006 (no later amendments or editions) published at the U.S. Government Printing Office, Superintendent of Documents, Mail Stop: SSOP, Washington, D.C. 20402-9328, incorporated by reference and on file with the Department.
 - b. Interior lamps shall be provided that illuminate the center aisle and step well.
 - c. Alternately flashing signal lamps:
 - i. When a school bus is equipped with a four-lamp system, the system shall consist of two red alternately flashing signal lamps located one on the left and one on the right above the rear windows of the school bus and two red alternately flashing signal lamps located one on the left and one on the right above the windshield.
 - ii. When a school bus is equipped with an eight-lamp system, the four red alternately flashing signal lamps shall be installed as described in subsection (14)(c)(i) and the four amber alternately flashing signal lamps shall be installed as follows: one amber alternately flashing signal lamp shall be located adjacent to each red alternately flashing signal lamp, at the same level, but closer to the vertical centerline of the school bus. The system of red and amber alternately flashing signal lamps shall be wired so the amber alternately flashing signal lamps are activated manually and the red alternately flashing signal lamps are activated automatically or manually.
 - iii. Except for LED lamps, each alternately flashing signal lamp shall be covered by a lamp hood.
 - d. Turn signal and stop lamps:
 - i. Except as provided in subsections (17)(d)(iii) and (17)(d)(iv), all school buses shall be equipped with amber side-mounted turn signals. The turn signal lamp on the left side of the bus may be mounted rearward of the stop signal arm and the turn signal lamp on the right side may be mounted rearward of the entrance door.
 - ii. Except on Type A school buses, a school bus body shall be equipped with rear turn signal lamps that are at least 7 inches in diameter, or if the lamp shape is other than round, a minimum of 38 square inches of illuminated area. The lens area of the rear turn signal lamps on Type A school buses shall be at least 21 square inches. The rear turn signal lamps shall be connected to the hazard warning switch located in the driver's compartment to allow the school bus driver to activate simultaneous flashing of

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- turn signal lamps when needed as a traffic hazard warning. The rear turn signal lamps shall be located to the far left and right sides of the flat surface of the rear of the school bus body and below the rear window.
- iii. A Type C school bus may have a double-faced turn signal lamp that is visible from the front and rear of the school bus and mounted on the tops or sides of both front fenders or may have a turn signal lamp mounted on the left and right sides of the grill and may have a turn signal lamp mounted on each side of the school bus body between the window line and the second rub rail and forward of the vertical centerline.
 - iv. A Type D school bus may have a turn signal lamp mounted at the front of the school bus body above each head lamp and may have a turn signal lamp mounted on each side of the school bus body between the window line and second rub rails and forward of the vertical centerline of the school bus.
 - v. A 7 inch diameter stop lamp, or if the lamp shape is other than round, a stop lamp with a minimum of 38 square inches of illuminated area shall be located toward the centerline and adjacent to each of the rear turn signal lamps.
 - e. Backup lamps: A school bus shall be equipped with two backup lamps with clear lenses, located one on the right and one on the left rear panels below the rear windows.
 - f. White flashing strobe lamp: If used on a school bus, a strobe lamp shall have a single clear lens that emits light 360 degrees around its vertical axis and shall be located on the longitudinal centerline of the school bus roof 1/3 to 1/2 of the distance forward from the rear of the school bus body unless this placement restricts the view of the strobe lamp.
 - i. If the view of the strobe lamp is restricted when the strobe lamp is located 1/3 to 1/2 of the distance forward from the rear of the school bus body, the strobe lamp may be mounted immediately to the rear of the roof hatch.
 - ii. The strobe lamp shall be controlled by a manual switch located in the driver's compartment.
 - iii. A pilot lamp shall be located in the driver's compartment to show the school bus driver that the strobe lamp is activated.
18. Mirrors:
- a. Interior mirror: The interior mirror shall be made of either laminated glass or glass bonded to a backing that will retain the glass in the event of breakage. The interior mirror in Types B, C, and D school buses shall be a minimum of 6 inches in height and 30 inches in length surrounded by a frame with rounded corners. The interior mirror in Type A buses shall be a minimum of 6 inches in height and 16 inches in length.
 - b. Exterior mirrors: A school bus shall comply with the requirements contained in 49 CFR 571.111, October 2006 (no later amendments or editions), published at the U.S. Government Printing Office, Superintendent of Documents, Mail Stop: SSOP, Washington, D.C. 20402-9328, incorporated by reference and on file with the Department.
19. Noise suppression switch: A school bus shall be equipped with a manual noise suppression switch. Identification shall be provided on or adjacent to the switch, in order to clearly state its purpose and distinguish it from other controls. This switch shall be an on-off type that deactivates body equipment that produces noise, including, at least, the AM-FM radio, heaters, air conditioners, fans, and defrosters. This switch shall not deactivate safety systems, such as windshield wipers or lighting systems.
20. Overall length: The overall length of a school bus shall not exceed 45 feet including accessories.
 21. Overall width: The overall width of a school bus shall not exceed 102 inches excluding mirrors.
 22. Rear bumper:
 - a. The rear bumper shall be made of a minimum of 3/16 inch thick pressed steel that is a minimum of 8 inches in total height.
 - b. The rear bumper shall be wrapped around the back corners of the bus and shall extend toward the front of the school bus for at least 12 inches as measured from the rear-most point of the school bus body at the floor line.
 - c. The rear bumper shall be attached to the chassis frame and braced to support the rear corners of the bumper.
 - d. The rear bumper shall extend at least 1 inch beyond the rear-most part of the school bus body as measured at the floor line.
 - e. The rear bumper shall not be equipped with foot-holds or handles.
 - f. A Type A school bus equipped with the chassis manufacturer's rear bumper is exempt from subsections (22)(a) through (22)(c).
 23. Restraining barrier:
 - a. The restraining barrier shall be a minimum of 38 inches high as measured from the interior floor of the school bus to the top of the restraining barrier.
 - b. The restraining barrier shall be the same width as the seat directly behind the restraining barrier.
 24. Rub rails:
 - a. There shall be no fewer than two rub rails located on a school bus as follows:
 - i. One rub rail shall be located on each side of the school bus approximately at seat cushion level and shall extend from the rear post of the service door frame completely around the school bus body, excluding the emergency door, to the front post of the school bus driver's window.
 - ii. One rub rail shall be located on each side of the school bus approximately at the floor line and shall extend from the rear post of the service door frame to the rear corner post of the school bus body and from the front post of the school bus driver's window to the rear corner post on the driver's side
 - b. Rub rails are not required on emergency doors, special-service entrance door, access panels and compartment doors, and wheel well openings.
 - c. Each rub rail shall be attached on the outside of the school bus body at each structural post in the school bus body.
 - d. Each rub rail shall be a minimum of 4 inches in width and constructed of corrugated or ribbed 16-gauge steel.
 25. Seat belt for school bus driver: A seat belt for the school bus driver shall be installed in the driver's compartment. The seat belt shall be equipped with a retractor on each

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- side of the school bus driver's seat to keep the seat belt retracted and off the floor when not in use.
26. Seats:
- a. Each seat shall have a minimum depth of 15 inches measured from the front of the seat cushion to the seat back.
 - b. Each seat shall be a minimum of 38 inches in height measured from the interior floor of the school bus to the top of the back cushion.
 - c. Seat spacing shall meet the requirements of 49 CFR 571.222, October 2006 (no later amendments or editions), published at the U.S. Government Printing Office, Superintendent of Documents, Mail Stop: SSOP, Washington, D. C. 20402-9328, incorporated by reference and on file with the Department. Seat spacing shall not be less than 24 inches between the front of a seat back cushion to the back surface of the cushion on the preceding seat. Seat spacing shall be measured at cushion height, at the center of the seat, on a plane parallel to the center line of the bus. The seat upholstery may be placed against the seat cushion padding, but without compressing the padding, before measurement is taken.
 - d. The school bus driver's seat shall be adjustable, without the use of tools, both vertically and horizontally for a minimum of 4 inches. Seats with vertical adjustments are not required on Types A and B school buses.
27. Service door:
- a. The service door shall be located on the right side of the school bus opposite the school bus driver and within direct view of the school bus driver when seated in the school bus driver's seat. Types A and B school buses are exempt from this provision.
 - b. The service door shall have a minimum horizontal opening of 24 inches and a minimum vertical opening of 68 inches. Type A school buses shall have a service door with a minimum opening of 1200 square inches.
 - c. Windows in the upper and lower panels of the service door shall be made of safety glass. The bottom of each lower window panel shall be no more than 10 inches from the top surface of the lower step of the service entrance. The top of each upper window panel shall be no more than 6 inches below the top of the service door. Type A buses are exempt from this provision.
 - d. To protect passengers' fingers, a flexible rubber material shall be attached by number 10 3/4 inch metal screws to the opening and closing edges of the service door. Type A school buses are exempt from this provision.
 - e. The service door shall open towards the exterior of the school bus. A Type A school bus is exempt from this provision if the service door is provided by the school bus chassis manufacturer.
 - f. A header pad, filled with a material to protect against injury, shall be attached to the top edge of the frame of the service door. The header pad shall be at least 3 inches wide and 1 inch thick and extend the full width of the service entrance.
 - g. A Type A school bus with the chassis manufacturer's standard service entrance is exempt from subsections (27)(a) through (27)(d).
28. Steps:
- a. The risers of the steps in the service entrance shall be equal. When plywood is laid over the steel floor of the school bus, the height of the top step may be increased by the thickness of the plywood.
 - b. The first step at the service entrance shall be no less than 10 inches and no more than 16 inches from the ground.
 - c. Steps shall be enclosed in the school bus body.
 - d. Steps shall not extend beyond the side of the school bus body.
 - e. A handrail not less than 10 inches in length shall be provided inside the doorway.
29. Step treads:
- a. All steps, including the floor-line platform area, shall be covered with ribbed or non-skid floor-covering material that is mounted on a metal plate.
 - b. The metal back of the step tread shall be a minimum 24-gauge cold rolled steel and shall be permanently bonded to the ribbed or non-skid material.
 - c. If ribbed material is used, the ribbed design shall run from the risers toward the service entrance. Each step tread shall have a 1 1/2 inch white nosing.
30. Stirrup steps: There shall be a handle and at least one folding stirrup step or recessed foothold located on each side of the front of a school bus for accessibility for cleaning the windshield and lamps. Type A school buses are exempt from this provision.
31. Stop signal arm:
- a. School buses shall be equipped with a stop signal arm on the left side of the school bus body that extends 90° from the school bus body when opened.
 - b. The stop signal arm shall be either air or electrically driven, and meet the requirements of Standard J1133, November 2004 (no later amendments or editions) published by the Society of Automotive Engineers, Inc., 400 Commonwealth Drive, Warrendale, PA 15096-0001, incorporated by reference and on file with the Department.
 - c. The stop signal arm shall be an 18-inch octagon, constructed of a red material that reflects light, with the word "STOP" printed on both sides in white letters not less than 5 inches high. Additionally, the word "STOP" may be illuminated by a light-emitting diode system on both sides of the stop signal arm.
32. Sun shield: An interior adjustable transparent sun shield or visor not less than 6 inches x 30 inches with a finished edge shall be installed over the windshield in the driver's compartment. School buses with a gross vehicle weight rating of 10,000 pounds or less are exempt from this provision.
33. Tailpipe:
- a. The tailpipe shall extend to, but not more than 2 inches beyond, the outer edge of the rear bumper;
 - b. The tailpipe shall exit in the rear of the vehicle behind the rear drive axle, and shall be placed according to the manufacturer's specifications; and
 - c. The tailpipe shall not exit beneath any fuel filler location or beneath any emergency door.
34. Undercoating:
- a. The entire underside of the school bus body, including floor sections, cross member and below-floor-line side panels, shall be coated with rust-proofing material for which the material manufacturer has issued to the bus body manufacturer notarized certification that materials meet or exceed all perfor-

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- mance and qualitative requirements of paragraph 3.4 of Federal Specification TT-C-520B, Coating Compound, Bituminous, Solvent Type, Underbody (For Motor Vehicles), February 2, 1973 (no later amendments or editions), published by the General Services Administration acting as an agent for the Superintendent of Documents, Washington D.C. 20402, and incorporated by reference and on file with the Department. Modified test procedures shall be used for the following requirements:
- i. Salt spray resistance – test modified to 5% salt and 1,000 hours,
 - ii. Abrasion resistance, and
 - iii. Fire resistance.
- b. Test panels shall be prepared in accordance with paragraph 4.6.12 of Federal Specification TT-C-520B, with a modified procedure requiring that the test shall be made on a 48-hour air-cured film at a thickness recommended by the material manufacturer.
 - c. Undercoating is not required if the underside of the school bus is constructed of noncorrosive material.
 - d. The undercoating material shall be applied with suitable airless or conventional spray equipment to the recommended film thickness and shall show no evidence of voids in the cured film.
35. Ventilation: An immovable, non-closing exhaust ventilator shall be installed in the school bus roof.
 36. Wheel housing:
 - a. The wheel-housing opening shall be large enough to allow for the removal of the tire and wheel.
 - b. The wheel housing shall be constructed of 16-gauge steel or fiberglass of equal strength and sealed to the school bus floor.
 - c. The wheel housing shall not extend more than 12 inches above the floor inside the school bus body and shall not extend into the emergency door opening.
 - d. The wheel housing shall provide clearance for tire chains installed on the tires of the driving wheels.
 37. Windows: Each side window in the passenger compartment of a school bus body shall provide an unobstructed opening of at least 190 square inches when the window is open.
 38. Windshield washer system: A windshield washer system that provides an application of cleaning solution to the windshield shall be installed.
 39. Windshield wipers:
 - a. A windshield wiping system with a minimum of two speeds shall be provided.
 - b. The windshield wipers shall be operated by one or more air or electric motors.
- Historical Note**
- Adopted effective February 16, 1996 (Supp. 96-1). Amended by final rulemaking at 7 A.A.R. 2906, effective June 13, 2001 (Supp. 01-2). Amended by final rulemaking at 14 A.A.R. 2110, effective May 8, 2008 (Supp. 08-2). New Section R13-13-107 recodified from R17-9-107 at 20 A.A.R. 2083, effective July 25, 2014 (Supp. 14-3). Amended by final rulemaking at 21 A.A.R. 3211, effective January 24, 2016 (Supp. 15-4).
- R13-13-108. Inspection, Maintenance, and Alterations**
- A. A school bus shall be inspected by the Department before the school bus is introduced into Arizona to transport passengers.
 1. After inspecting a school bus, the Department shall place a decal that contains a number used by the Department to identify the school bus above the school bus driver's side window in the driver's compartment. This decal shall not be removed from the school bus while it is operated in Arizona except by the Department. Before the school bus is transferred or retired from service, the school bus owner shall contact the Department to have this decal removed.
 2. If the Department finds that no major defect exists on a school bus, the Department shall place a safety inspection decal that contains the month and year of inspection on the right side of the centerline of the windshield of the school bus in a position that does not interfere with the school bus driver's line of vision.
 3. If the Department finds a major defect on the school bus, the Department shall place the school bus out of service. Before the school bus may be placed back into service, the Department shall reinspect the school bus to determine that the major defect has been corrected. If the major defect has been corrected, the Department shall place a safety inspection decal on the school bus in accordance with subsection (A)(2).
 4. If the Department finds a minor defect on a school bus, the Department shall issue an inspection order, but the school bus may be operated to transport passengers while the minor defect is being corrected. A copy of the inspection order shall be returned to the Department within 15 working days from the date of inspection and shall show that the minor defect has been corrected unless, in accordance with the provisions of subsection (A)(5), the school bus owner obtains an extension of time to correct the minor defect.
 5. Upon receipt of a written request from the school bus owner, the Department shall grant one or more extensions of time to correct a minor defect if:
 - a. The school bus owner submits to the Department written documentation that the:
 - i. School bus owner's action or inaction did not cause or contribute to the delay in completing the repair;
 - ii. School bus owner has secured a written estimated expedited delivery or completion date from the provider of the materials or services required to complete the repair; and
 - iii. School bus owner made reasonable attempts to secure the materials or services, or materials or services of equivalent quality, at a substantially similar price from alternate sources; and
 - b. The Department determines that an extension of time to correct the minor defect will not increase the probability of an accident involving the school bus or passengers or the risk of injury to the school bus driver or passengers.
 6. Each extension of time shall be for 60 days or less. The Department shall determine the length of each extension of time after giving consideration to the information provided under subsection (A)(5)(a). When the minor defect is corrected, the school bus owner shall return to the Department a copy of the inspection order issued by the Department.
 7. If a minor defect on a school bus is not corrected within 15 working days or at the end of an extension period, if applicable, the Department shall remove the safety inspection decal and the school bus shall be placed out of

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service until further inspection by the Department shows that the minor defect is corrected.

- B. The Department shall use the following criteria to determine whether a major or minor defect is present on a school bus introduced into Arizona on or after May 31, 2008. For a school bus introduced into Arizona before May 31, 2008, the Department shall determine whether the school bus is in an unsafe

condition by using the following criteria or if the item does not comply with the criteria due to its original design, the Department shall determine if the school bus is in an unsafe condition by determining if the school bus is maintained in accordance with the manufacturer’s original design specifications for the specific make and model of school bus.

INSPECTION ITEM	MAJOR DEFECT	MINOR DEFECT
Air conditioning system, if installed	Missing hose covers or trim panels Missing air conditioning louvres Loose or missing air conditioning mounting fasteners Refrigerant leaks from evaporators or hoses in the interior of the bus Broken compressor brackets Broken mounting bolts Electrical wiring hanging out of evaporator covers Missing evaporator covers Missing air diffusers Evaporators not secured to ceiling or bulkhead	Broken or loose evaporator covers Unsecured refrigerant hoses Loose, missing or severely cracked belts
Alarm, back-up, if installed		Low volume Not working
Auxiliary fan, if installed	Obstructs school bus driver’s view of any mirror Used in place of defrosting or defogging system Not covered by protective cage	Incorrect size Not controlled by independent switch
Battery (Types C and D buses only)	Not mounted according to the manufacturer’s instructions	Incorrect or no identification
Belt cutter	Missing	
Body fluid cleanup kit	Absence of body fluid cleanup kit Any item missing from body fluid cleanup kit	
Brakes, compressed air	Inoperative or missing visual or audible low air signal Compressed-air gauge missing Grease or oil leakage into brake system Exposed or damaged ply on any air hose Air capacity less than 90 pounds per square inch at idle speed Wet-reservoir valve missing or inoperative Leaking, cracked, or broken hose or connection Audible air leak Pushrod exceeds limitation Low-air warning system does not activate at 60 psi and remains activated at less than 60 psi	
Brakes, hydraulic-assisted	Inoperative or missing visual or audible signal	
Brakes, emergency-brake system	Inoperative Does not activate when service brake system reaches 20 to 40 pounds psi	
Bumpers	Break or rip Loose bumper Foothold or handle present on rear bumper	Not painted black

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Cooling system		Leak in system Fluid level in radiator not full
Crossing control arm, if installed	Has sharp edges or projections that could injure a student Will not retract	Not working Fails to open completely
Defroster	Inoperative Ventilation opening blocked	
Drive shaft	Absence of protective metal guard installed by the manufacturer around the drive shaft to any driving axle	
Dust boots	Missing, torn, split, or loose around floor-mounted gear shift, parking brake handle, or steering column.	
Emergency warning devices	Having fewer than two operable	Missing one
Emergency door	Inoperative latch Broken or missing portion of seal around door Window not of safety glass Inoperative warning device Lock is not the ignition shut-off type	No header pad
Emergency exit	Inoperative warning device or latch on all emergency exits except roof exit Not properly identified Header pad missing or damaged Broken seal around window	Inoperative roof exit
Engine compartment	Inoperative hood latch	Deterioration of hose, belt, or wiring Deterioration of battery hold-down clamp, corrosive acid buildup on terminal
Exhaust system	Exhaust leak Exhaust tailpipe extends more than 2 inches beyond the outer edge of the rear bumper or fails to terminate flush with the outside edge of the school bus body in the rear of the school bus	Exhaust pipe bracket not attached to the chassis and the tailpipe End of tailpipe pinched or bent
Exterior paint		Exposed metal or base primer Incorrect color
Fire extinguisher	Absence of fire extinguisher Not at full charge	Not mounted in required position
First-aid kit	Absence of first-aid kit Three or more items missing from first-aid kit	One or two items missing from first-aid kit
Frame	Crack in frame Cracked, loose, or missing body mount or body-mount bolt Welded repair not performed by body or chassis manufacturer or manufacturer's certified agent	
Fuel system	Fuel tank not mounted to the chassis frame or not vented to outside of engine compartment Fuel system extends above chassis frame (does not apply to filler tube or Type A bus) Fuel tank bracket cracked or broken Leaking tank or fuel line Fuel line attached to bottom of fuel tank Missing or improper fuel cap	

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Handrail	Handrail does not pass the inspection procedure described in R13-13-107(13)	
Heating system	Heater missing or inoperative Heater line in interior of school bus not covered by protective shield No shutoff valve	Unsecured heater hose Inadequate heat-producing capacity
Horn (Air or electrical)	Missing or inoperative	
Instrument panel	Missing or inoperative ignition power-deactivation switch if the ignition does not use a key. Any inoperative gauge or switch, except auxiliary fan switch Improper illumination	Inoperative auxiliary fan switch
Interior, aisles	Incorrect clearance	
Interior, seats	Broken, cracked, exposed, or loose seat frame Screw or mounting bolt missing	
Interior, floor covering	Hole Improper material Improperly bonded Loose metal trim	
Lamps, clearance	Inoperative Cracked, broken, or missing lens	Incorrect color Dust behind lens
Lamps, head	Low beam inoperative Not mounted as required by 49 CFR 393.24 Both high beams inoperative	One high beam inoperative Inoperative dimmer switch on a bus not operated when head lamps are required Cracked, broken, or missing lens
Lamps, back-up	Inoperative	Incorrect color Cracked, broken, or missing lens Dust behind lens
Lamps, interior Over aisle		Inoperative Cracked, broken, or missing lens
Lamps, interior Over step-well	Inoperative	Cracked, broken, or missing lens
Lamps, turn signal	Inoperative	Cracked, broken, or missing lens Dust behind lens Incorrect size Incorrect location
Lamps, strobe, if installed	Pilot or strobe lamp missing or inoperative Cracked, broken, or missing lens Incorrect color Incorrect location	
Lamps, identification		Inoperative Incorrect color Cracked, broken, or missing lens Dust behind lens
Lamps, hazard	Inoperative	
Lamps, stop	Both inoperative	One inoperative Cracked, broken, or missing lens Dust behind lens

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Lamps, tail	Both inoperative	One inoperative Cracked, broken, or missing lens Dust behind lens
Lamps, side marker		Inoperative Incorrect color Cracked, broken, or missing lens Dust behind lens
Lamps, alternately flashing signal	One or more inoperative lamps	Incorrect color Lamp hood missing Cracked, broken, or missing lens Dust behind lens
Lettering and numbering		Missing any lettering or numbering Incorrect size, color, or location Unauthorized sign, letter, or object
Mirrors, cross-view	Missing Broken or loose mounting Broken or clouded glass	
Mirrors	Interior or exterior mirror missing Loose or broken mounting bracket Crack, break, or flaking of reflective material affixed to back of mirror glass Crack or break of mirror glass Loose or missing mounting bracket bolt or screw Incorrect size Do not meet safety standards contained in 49 CFR 571.111	
Miscellaneous	Object not secured inside the school bus Any item noted by the Department that could cause injury or present a danger to a passenger or school bus driver	Any item noted by the Department that needs to be repaired because it could interfere with the safe operation of the school bus but that is not a major defect
Noise suppression switch	Out of service Malfunctioning	
Parking brake	Inoperative, missing part, or not in proper adjustment	
Restraining barrier	Missing Incorrect size Loose	
Rub rails	Missing more than one Loose or dangling	Missing one Incorrect location Incorrect color Incorrect width
School bus body	Damage resulting in cut or rip to the exterior of school bus body Hole that would allow exhaust gases or dust to enter the passenger compartment Bolt attaching body to chassis loose, broken, or missing Exceeds length or width limitations	Absence of undercoating Loose or missing rivet, screw, or bolt
Seat belt	Absence of driver seat belt or inoperative driver seat belt buckle or retraction system Frayed seat belt material	

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<p>Seats</p>	<p>One or more missing Incorrect size or location Driver seat does not meet requirements for adjustment Loose seat cushions Exposed frame</p>	<p>Torn seat cushions</p>
<p>Service door</p>	<p>Incomplete closing of door assembly Does not contain safeguards to prevent accidental opening Window not made of safety glass Broken or cracked window panel Inoperative door control Does not open towards exterior of the school bus Scissors or butterfly door prohibited Absence of flexible material on outer edge of service door Absence of header pad</p>	
<p>Special needs school bus</p>	<p>Incorrect location or size of special-service entrance Incorrect size of special-service entrance door Window not made of safety glass Inoperative pressure switch No safety device in wheelchair lift No restraining barrier on wheelchair-lift platform Fails to provide wheelchair-securement device or anchorage Special-service entrance door does not open towards exterior of school bus (except Type A school bus) Wheelchair lift inoperable</p>	<p>Drip molding not installed above the special-service entrance Special-service entrance door not weather-sealed Incorrect color of door material or panel Lacks wheelchair emblem Missing fastening device for special-service entrance door Dome light missing or inoperative</p>
<p>Splash guards</p>		<p>Bottom edge of guard is more than 8 inches above the ground Does not cover entire width of single or dual tire Missing splash guard</p>
<p>Steering</p>	<p>Distance of movement not within parameters of R13-13-106(22)(c) Steering wheel does not move freely when turning the wheel Missing or cracked steering-wheel ring or bracing from center of steering wheel to steering-wheel ring Steering column not in a fixed position or locking mechanism missing or inoperative on adjustable steering column Steering column mounting bracket cracked or missing Loose or missing mounting bolt in steering gear housing Loose connecting arm on steering gear power source</p>	<p>Leakage of lubricant Power-steering belt cracked, frayed, or slipping Fluid does not fill power steering reservoir to the full level on the dipstick</p>
<p>Steps</p>	<p>Loose or missing grab handle in step-well Missing stirrup step or handle</p>	<p>Incorrect distance between steps Incorrect floor covering</p>

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Stop signal arm	Any stop arm inoperative Air leak If equipped with a light-emitting diode system, one or more lights missing Missing any stop arm	Incorrect lettering or color on stop signal arm Incorrect size of stop signal arm
Sun shield or visor (if required)	Broken, cracked, or missing	Not transparent
Suspension	Broken, damaged, or missing suspension part U-bolt loose, broken, cracked, or missing	Leaking shock absorber
Tires	Tires on same axle not of the same size Combination of bias and radial tires Tires vary more than one size between axles Tires not correct size for gross vehicle weight rating of school bus Single rear tire on school bus with gross vehicle weight rating of more than 10,000 pounds Regrooved, recapped, or retreaded tire mounted on a front wheel Tread groove depth less than 4/32 of an inch, measured in a tread groove on a tire on a front wheel Tire is mounted or inflated so it comes in contact with any part of the school bus or other tire Tread groove depth less than 2/32 of an inch, measured in a tread groove on a tire on a rear wheel Bump, knot, or bulge present on any tire Sidewall is cut, worn, or damaged to the extent that ply cord is exposed Separation of tread from tire casing Exposed ply or belting on any tire Flat tire or audible leak from a tire on any wheel If present, spare tire on Type C or D school bus not mounted outside passenger compartment	
Ventilation	Non-closing exhaust ventilator missing	
Wheel housing	Incorrect size or construction of wheel housing or opening	
Wheels	Not correct size for gross vehicle weight rating of school bus Loose or missing lug nut Broken stud bolt Crack or welded repair in wheel assembly	Not painted black
Windows	Not of safety glass Opening too small Cracked or broken Placement of non-transparent material Inoperative latch	
Windshield	Placement of non-transparent material Crack, chip, or pitting that interferes with the school bus driver's vision	Crack, chip or pitting that does not interfere with the school bus driver's vision
Windshield washer system	Missing	Low or no cleaning solution

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Windshield wipers	Inoperative or missing wiper on school bus driver's side Inoperative or missing wiper on side opposite the school bus driver	Inoperative speed control Split or hardened wiper blade
Wiring	Incorrect color or number coding Wiring circuit not protected by fuse or circuit breaker One or more non-metal grommets missing Electrical wires outside the school bus body improperly secured	

- C. A school bus shall be inspected annually, according to a schedule established by the Department and the standards contained in subsections (A) and (B) and this section.
 - 1. If the Department finds a major defect, the Department shall remove the current safety inspection decal and replace with a new safety inspection decal only after the major defect is repaired.
 - 2. If the Department finds a minor defect, the Department shall remove the current safety inspection decal and replace with a new safety inspection decal and allow the school bus owner to make repairs in accordance with the provisions at R13-13-108(A)(4) through (A)(7).
- D. A school bus driver shall perform the following operations checks and tasks on the school bus:
 - 1. Before a school bus is operated for the first time each day, conduct a pre-trip operations check of the school bus to determine that the following are operational and are not damaged:
 - a. All lamps, including alternately flashing, back-up, clearance, hazard, head, identification, interior, side marker, stop, tail, turn signal, and strobe lamps, if any, and emergency warning devices;
 - b. Tires, wheels, and wheel fasteners;
 - c. Service door;
 - d. Steps and step wells;
 - e. Emergency exits and signals;
 - f. Emergency doors and signals;
 - g. Wheelchair lift and wheelchair lift dome lamp;
 - h. Wheelchair-securement devices;
 - i. Wheelchair-securement anchorages;
 - j. Special-service entrance door;
 - k. Special-service entrance door signal;
 - l. Windows;
 - m. Windshield;
 - n. Windshield wipers;
 - o. Instrument panel and gauges;
 - p. Service brakes;
 - q. Service brake warning devices;
 - r. Parking brake;
 - s. Bumpers;
 - t. Seats and seat frames;
 - u. Floor coverings;
 - v. School bus body;
 - w. Engine fluid levels;
 - x. Engine compartment steering components;
 - y. Stop arm;
 - z. Horn;
 - aa. Mirrors;
 - bb. Engine fluid gauges;
 - cc. Noise suppression switch;
 - dd. Child alert notification system, if installed;
 - ee. Crossing control arm, if installed; and
 - ff. Air conditioning system, if installed.
 - 2. Each time a pre-trip operations check of a school bus is conducted, check all emergency equipment to determine that the emergency equipment complies with the standards at R13-13-107(11) and R13-13-110.
 - 3. Each time a school bus is operated subsequent to the first time the school bus is operated each day, conduct a walk-around operations check to determine whether there is an obvious engine fluid leak and the following are operational and are not damaged:
 - a. All lamps listed in subsection (D)(1)(a);
 - b. Tires, wheels, and wheel fasteners;
 - c. Bumpers;
 - d. School bus body;
 - e. Windows;
 - f. Stop arm; and
 - g. Windshield.
 - 4. Once daily, sweep and clean the interior of the school bus.
 - 5. After completing each operations check, the school bus driver shall complete the portions of a written monthly operations check report that provide the following information:
 - a. Date and time of the operations check;
 - b. Name of the school bus driver conducting the operations check;
 - c. Name of the employer;
 - d. Number assigned to the school bus by the school bus owner and painted on the outside of the school bus body; and
 - e. Indication of whether an item is operational, inoperative, or damaged.
 - 6. A school bus driver who performs an operations check and finds any item listed in subsections (D)(1) through (D)(3) inoperative or damaged shall immediately complete and submit a written repair order to the school bus owner through the employer.
 - a. The school bus owner shall use the standards contained in subsection (B) to determine whether an item reported on a repair order as inoperative or damaged is a major or minor defect.
 - b. If the school bus owner finds that a major defect exists, the school bus owner shall place the school bus out of service until the major defect is repaired.
 - c. If the school bus owner finds that a minor defect exists, the school bus may be used to transport passengers, but the school bus owner shall repair the defect in accordance with the provisions at R13-13-108(A)(4) through (A)(7). Time in which to make the minor repair shall be calculated from the date of the written repair order.
 - 7. After a school bus makes its final trip on the last day the school bus is driven in a particular month the school bus driver operating the school bus shall submit the written

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monthly operations check report to the school bus owner through the employer.

- E.** In addition to the operations checks described in subsection (D), a school bus owner shall systematically inspect, repair, and maintain, or cause to be systematically inspected, repaired, and maintained, all parts of a school bus chassis and body described in Sections R13-13-106 and R13-13-107 and any other parts and accessories that may affect safe operation of the school bus. The school bus owner shall ensure that the maintenance of a school bus and repair of major defects is done by:
1. An ASE-certified technician,
 2. An individual working under the supervision of an ASE-certified master school bus technician,
 3. An individual with at least one year of participation in a school bus manufacturer-sponsored or commercial vehicle maintenance training program, or
 4. An individual with at least one year of experience as a school bus mechanic.
- F.** Records
1. A school bus owner shall maintain the following records in a separate file for each school bus for as long as the school bus is in operation in Arizona:
 - a. Number assigned to the school bus by the school bus owner,
 - b. Name of the school bus body manufacturer,
 - c. Name of the school bus chassis manufacturer,
 - d. Identification number of the school bus located in the driver's compartment,
 - e. Year the school bus body was assembled upon the school bus chassis, and
 - f. Size of the tires placed on the school bus.
 2. A school bus owner shall maintain all records of initial inspection, subsequent inspections, and repairs and maintenance procedures performed on the school bus for three years from the date of inspection, repair, or maintenance. The school bus owner shall ensure that all records of repairs and maintenance procedures include verification from the owner of the business responsible for the repairs and maintenance procedures that the individual who actually performs the repairs and maintenance procedures is qualified under subsection (E).
 3. If a school bus is sold, the school bus owner shall transfer the records required by subsections (F)(1) and (F)(2) to the purchaser.
 4. A school bus owner shall maintain monthly operations check reports for three months from the date of the report.
- G.** Alterations
1. Before a school bus owner alters a school bus, the school bus owner shall submit a request in writing to the Department describing the proposed alteration and the reason for the proposal.
 2. Within 60 days of receiving a request for alteration, the Department shall inform the school bus owner in writing whether the request has been approved or denied. The Department shall base its decision to approve or deny on an assessment of whether the proposed alteration affects the operations of a school bus, complies with the statutes and rules applicable to school buses, or affects the health, safety, or welfare of any individual.

Historical Note

Adopted effective February 16, 1996 (Supp. 96-1).
Amended by final rulemaking at 7 A.A.R. 2906, effective June 13, 2001 (Supp. 01-2). Amended by final rulemaking at 14 A.A.R. 2110, effective May 8, 2008 (Supp. 08-2). New Section R13-13-108 recodified from R17-9-108

with Section cross-references revised, at 20 A.A.R. 2083, effective July 25, 2014 (Supp. 14-3). Amended by final rulemaking at 21 A.A.R. 3211, effective January 24, 2016 (Supp. 15-4).

R13-13-109. Time-frames for Making Certification Determinations

- A.** For certification as a school bus driver, the time-frames required by A.R.S. § 41-1072 et seq. are:
1. Overall time-frame: 60 days
 2. Administrative completeness review time-frame: 45 days
 3. Substantive review time-frame: 15 days
- B.** An administratively complete application for certification as a school bus driver consists of all the information and documents listed in R13-13-102(A).
- C.** An administrative completeness review time-frame, as described in A.R.S. § 41-1072(1) and listed in subsection (A)(2), begins on the date the Department receives an application.
1. If the application is not administratively complete when received, the Department shall send a notice of deficiency to the applicant. The deficiency notice shall state the documents and information needed to complete the application.
 2. Within 120 days from the postmark date of the deficiency notice, the applicant shall submit to the Department the missing documents and information. The time-frame for the Department to finish the administrative completeness review is suspended from the postmark date of the deficiency notice until the date the Department receives the missing documents and information.
 3. If the applicant fails to provide the missing documents and information within the time provided, the Department shall close the applicant's file. An applicant whose file is closed and who wants to be certified shall apply again under R13-13-102.
 4. If the application is administratively complete, the Department shall send a written notice of administrative completeness to the applicant.
- D.** A substantive review time-frame, as described in A.R.S. § 41-1072(3) and listed in subsection (A)(3), begins on the postmark date of the notice of administrative completeness.
1. During the substantive review time-frame, the Department may make one comprehensive written request for additional information.
 2. The applicant shall submit to the Department the additional information identified in the request for additional information within 20 days from the postmark date of the request for additional information. The time-frame for the Department to finish the substantive review of the application is suspended from the postmark date of the request for additional information until the Department receives the additional information.
 3. Unless an applicant requests that the Department deny certification within the 20-day period in subsection (D)(2), the Department shall close the file of an applicant who fails to submit the additional information within the 20 days provided. An applicant whose file is closed and who wants to be certified shall apply again under R13-13-102.
 4. When the substantive review is complete, the Department shall inform the applicant in writing of its decision whether to certify the applicant.
 - a. The Department shall deny certification if it determines that the applicant does not meet all substantive criteria for certification required by statute and rule. An applicant who is denied certification may

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appeal the Department's decision under A.R.S. § 41-1092 et seq. and any rules made under A.R.S. § 41-1092.01(C)(4).

- b. The Department shall grant certification if it determines that the applicant meets all substantive criteria for certification required by statute and rule.

Historical Note

New Section R17-9-109 adopted by final rulemaking at 5 A.A.R. 384, effective January 5, 1999 (Supp. 99-1). Amended by final rulemaking at 11 A.A.R. 557, effective March 5, 2005 (Supp. 05-1). New Section R13-13-109 recodified from R17-9-109 with Section cross-references revised, at 20 A.A.R. 2083, effective July 25, 2014 (Supp. 14-3).

R13-13-110. First-aid Equipment

No later than 180 days after the effective date of these rules, a school bus in Arizona shall meet the requirements of this Section.

1. First-aid and body-fluid cleanup kits shall be mounted in a school bus in accordance with R13-13-107(11)(a).
2. First-aid kit: A school bus shall be equipped with a removable first-aid kit that has a weatherproofing seal around the lid to prevent moisture or dust from entering the first-aid kit, is clearly labeled as a first-aid kit, and contains the following:
 - a. Two - 1 inch x 2 1/2 inch yards adhesive tape rolls,
 - b. 24 - Sterile gauze pads 3 inches x 3 inches,
 - c. Eight - 2 inch adhesive bandages,
 - d. 10 - 3 inch adhesive bandages,
 - e. Two - 2 inch x 6 inch sterile gauze roller bandages,
 - f. Four - Triangular bandages approximately 40 inches x 36 inches x 54 inches with two safety pins,
 - g. Three - Sterile gauze pads at least 24 inches x 24 inches,
 - h. Three - Sterile eye pads,
 - i. One - Rounded-end scissors,
 - j. One - Pair of non-latex gloves, and
 - k. One - Mouth-to-mouth airway.
3. Body fluid or bloodborne-pathogen cleanup kit: A school bus shall be equipped with a removable body-fluid or bloodborne-pathogen cleanup kit that is sealed, clearly labeled as a body-fluid or bloodborne-pathogen cleanup kit, and contains the following:
 - a. One - Pouch of solidifier with chlorine,
 - b. One - Pick-up scoop with scraper,
 - c. One - Pair of non-latex gloves,
 - d. Two - Disinfectant hand wipes (antimicrobial),
 - e. Two - Plastic disposal bags with ties (biohazard),
 - f. Two - Germicidal towelettes effective against human immunodeficiency virus and tuberculosis,
 - g. Two - Paper crepe towels, and
 - h. One - Easy to follow instructions.

Historical Note

New Section made by final rulemaking at 7 A.A.R. 2906, effective June 13, 2001 (Supp. 01-2). Amended by final rulemaking at 14 A.A.R. 2110, effective May 8, 2008 (Supp. 08-2). New Section R13-13-110 recodified from R17-9-110 with Section cross-references revised, at 20 A.A.R. 2083, effective July 25, 2014 (Supp. 14-3).

R13-13-111. Rehearing or Review of Decision

- A. The Department shall provide for a rehearing and review of its decisions under A.R.S. Title 41, Chapter 6, Article 10 and the rules established by the Office of Administrative Hearings.
- B. A party may amend a motion for rehearing or review at any time before the Department rules on the motion.

- C. The Department may grant a rehearing or review for any of the following reasons materially affecting a party's rights:
 1. Irregularity in the proceedings of the Department or any order or abuse of discretion that deprived the moving party of a fair hearing;
 2. Misconduct of the Department, its staff, an administrative law judge, or the prevailing party;
 3. Accident or surprise that could not have been prevented by ordinary prudence;
 4. Newly discovered material evidence that could not, with reasonable diligence, have been discovered and produced at the hearing;
 5. Excessive penalty;
 6. Error in the admission or rejection of evidence or other errors of law occurring at the hearing or during the progress of the proceedings;
 7. The Department's decision is a result of passion or prejudice; or
 8. The finding of fact or decision is not justified by the evidence or is contrary to law.
- D. The Department may affirm or modify a decision or grant a rehearing to all or any of the parties on all or part of the issues for any of the reasons in subsection (C). An order modifying a decision or granting a rehearing shall specify with particularity the grounds for the order.
- E. When a motion for rehearing or review is based upon affidavits, the moving party shall serve the affidavits with the motion. An opposing party may, within 15 days after service, serve opposing affidavits. The Department may extend this period for a maximum of 20 additional days, for good cause as described in subsection (H).
- F. Not later than 15 days after the date of a decision, after giving the parties notice and an opportunity to be heard, the Department may grant a rehearing or review on its own initiative for any reason for which it might have granted relief on motion of a party. The Department may grant a motion for rehearing or review, timely served, for a reason not stated in the motion.
- G. If a rehearing is granted, the Department shall hold the rehearing within 60 days after the date on the order granting the rehearing.
- H. The Department may extend all time limits listed in this Section upon a showing of good cause. A party demonstrates good cause by showing that the grounds for the party's motion or other action could not have been known in time, using reasonable diligence, and:
 1. A ruling on the motion will further administrative convenience, expedition, or economy; or
 2. A ruling on the motion will avoid undue prejudice to any party.

Historical Note

New Section made by final rulemaking at 7 A.A.R. 2906, effective June 13, 2001 (Supp. 01-2). New Section R13-13-111 recodified from R17-9-111, at 20 A.A.R. 2083, effective July 25, 2014 (Supp. 14-3).

R13-13-112. Enforcement Audits

- A. To enforce the provisions of this Chapter, the Department may conduct an audit of any of the records required to be maintained under this Chapter. The audit may be conducted for cause or without cause.
- B. The Department may enter an employer's or owner's place of business to conduct an audit.
- C. An employer or owner shall make records available to the Department during regular business hours at the employer's or owner's place of business or at another mutually agreeable location.

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- D. Within 10 business days after completing an audit, the Department shall inform the employer or owner in writing of any concerns identified.
- E. The Department and the employer or owner shall make a written agreement specifying the actions that must be taken to address the concerns identified by the audit and the time within which the actions will be taken.

Historical Note

New Section made by final rulemaking at 11 A.A.R. 557, effective March 5, 2005 (Supp. 05-1). New Section R13-13-112 recodified from R17-9-112, at 20 A.A.R. 2083, effective July 25, 2014 (Supp. 14-3).

ARTICLE 2. MINIMUM STANDARDS FOR SCHOOL BUSES OPERATED ON ALTERNATIVE FUEL**R13-13-201. Minimum Standards for Compressed Natural Gas Fuel Systems**

- A. In addition to the definitions in R13-13-101, in this Article, unless otherwise specified:

“AGA” means the American Gas Association.

“ANSI” means the American National Standards Institute.

“Angle of departure” means the area above an imaginary line that extends from the bottom outside edge of the rear bumper on a vehicle to the point at which a tire on the vehicle’s rear drive axle touches the ground.

“Appurtenance” means an item connected to an opening of a natural-gas pressure vessel to make the natural-gas pressure vessel gas-tight. This includes pressure relief devices, shutoff, backflow, excess-flow, and internal valves, liquid-level and pressure gauges, and plugs.

“Approved” means acceptable to the Department.

“ASE” means National Institute of Automotive Service Excellence.

“Bracket” means rubber-lined, hoop and cradle mounting hardware supplied or approved by a pressure-vessel manufacturer to hold a natural-gas pressure vessel in a rack.

“CNG” means compressed natural gas, a combustible mixture of hydro-carbon gases and vapors, principally methane, that is reduced in volume by pressure for use as a vehicular fuel.

“Fuel-distribution assembly” means a device that regulates the flow of fuel from a natural-gas pressure vessel to a vehicle engine.

“Fuel line” means a pipe, tubing, or hose, and all related fittings through which natural gas passes on a vehicle.

“Installer” means a person who converts a school bus from the use of gasoline to the use of CNG by attaching a natural-gas fuel system to the school bus after the school bus is manufactured.

“Listed” means included in a publication of an approved organization that is concerned with product evaluation, conducts periodic inspection of equipment or material, and includes equipment or material in the approved organization’s publication only if the equipment or material complies with appropriate standards or performs in a specified manner.

“NFPA” means the National Fire Protection Association, which is located at 1 Batterymarch Park, P.O. Box 9101, Quincy, MA 02269-9101, and which is accessible at (617) 770-3000 and www.nfpa.org.

“NGV-1” means specific standards set by the American National Standards Institute and American Gas Association for the refueling connection device of a natural-gas vehicle.

“NGV-2” means specific standards set by the American National Standards Institute and American Gas Association for a vehicle-on-board natural-gas pressure vessel.

“Natural gas” means a combustible mixture of hydrocarbon gases and vapors, principally methane.

“Natural-gas fuel system” means a group of items including a pressure vessel and all attached valves, piping, and appurtenances that form a network for distributing natural gas to a vehicle engine.

“Operating pressure” means the internal force that a manufacturer intends for a natural-gas pressure vessel to achieve during normal operation of the vehicle to which the natural-gas pressure vessel is attached.

“Out-of-service” means not compliant with these rules, NFPA 52, or manufacturer’s instructions for installation, maintenance, or repair.

“Owner” means a private business, school, or school district that owns a school bus.

“PSI” means pound per square inch.

“Pressure-relief device” means a mechanism that is installed in a natural-gas pressure vessel or integrated with a valve, that is operated by temperature, pressure, or both, and that releases the CNG in the natural-gas pressure vessel in specific emergency conditions. A pressure-relief device for a U.S. Department of Transportation or Canada Transport natural-gas pressure vessel also includes a mechanism capable of protecting a partially charged natural-gas pressure vessel.

“Pressure vessel” means a cylinder that is part of a natural-gas fuel system and that is constructed, inspected, and maintained in accordance with U.S. Department of Transportation or Canada Transport regulations or ANSI/AGA NGV2, Basic Requirements for Compressed Natural Gas Vehicle (CNGV) Fuel Containers, or CSA B51, Boiler, Pressure Vessel and Pressure Piping Code.

“Pressure-vessel valve” means a mechanical device connected directly to a natural-gas pressure vessel opening that regulates the flow of CNG from the natural-gas pressure vessel to the vehicle engine.

“Rack” means a metal structure that surrounds a natural-gas pressure vessel mounted on a vehicle and is secured to the vehicle frame by a method capable of withstanding a static up, down, left, right, forward, or backward force of eight times the weight of the fully pressurized natural-gas pressure vessel.

“UL” means the Underwriters’ Laboratory, Inc.

- B. Applicability and enforcement date of this Section

1. This Section applies to school buses that are manufactured to use only gasoline or diesel fuel and are converted to use CNG, in whole or in part.
2. The Department shall enforce this Section beginning 180 days after it is filed with the Office of the Secretary of State. After the beginning enforcement date, a school bus that is manufactured to use only gasoline or diesel fuel and is converted to use CNG, in whole or in part, shall meet the requirements of this Section when the school bus is introduced into Arizona or when the school bus is converted to natural-gas power. A school bus introduced into Arizona and powered in whole or in part by CNG

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before the beginning enforcement date of this Section shall meet the requirements of this Section or those at A.A.C. R17-4-611.

3. After the beginning enforcement date of this Section, the Department shall not approve a school bus manufactured to use only gasoline or diesel fuel and converted to use CNG, in whole or in part, unless the natural-gas fuel system meets the requirements of this Section.

C. Insurance

1. An owner shall not contract with an installer unless the installer has insurance coverage provided by a comprehensive general liability broad form insurance policy that is approved by the Department. The insurance policy shall include coverage for liability resulting from:
 - a. Completed installation operations,
 - b. Harm that arises on the installer's premises, and
 - c. Breach of contract by the installer.
2. In addition to the liability coverage described in subsection (C)(1), an owner shall ensure that either:
 - a. The installer has insurance coverage for liability resulting from harm that arises from subcontracted work performed by an independent contractor, or
 - b. An independent contractor who performs work for the installer under an agreement has an insurance policy that provides coverage for liability resulting from harm caused by the independent contractor's work.
3. An owner shall not contract with an installer unless the installer has an insurance policy that provides at least \$1 million liability coverage per occurrence both for bodily injury and for property damage.
4. An owner shall not contract with an installer unless the issuer of the installer's insurance policies described in subsections (C)(1) through (C)(3) names the Department as an additional insured on each policy and keeps the Department informed of any change in the status of each policy.
5. An owner shall obtain the Department's approval of the installer's insurance policy by submitting proof of the insurance described in subsections (C)(1) through (C)(3) to the Department before entering a contractual agreement with the installer for the installation of a natural-gas fuel system on a school bus.
6. If an owner acts as an installer, the owner shall maintain the insurance required by this Section.
7. The Department shall approve an installer's insurance policy, proof of which is submitted by an owner in accordance with subsection (C)(5), if the policy conforms to the requirements in subsections (C)(1) through (C)(3). The Department shall send written notice of its decision to approve or disapprove the installer's insurance policy to the owner within 15 days from receipt of the proof of insurance.

D. General requirements for installing a natural-gas fuel system

1. Converting a school bus to use of CNG, whether in whole or in part, is not an alteration as defined in R13-13-101.
2. Unless specifically provided otherwise in this Section, when installing a natural-gas fuel system, an installer shall use parts and equipment and perform work in a manner that meets or exceeds the standards of NFPA 52, Standard for Compressed Natural Gas (CNG) Vehicular Fuel Systems, 1995 (and no later editions or amendments), Quincy, MA, which is incorporated by this reference and on file with the Department and the Office of the Secretary of State.

3. An installer shall use only UL-listed or AGA-approved carburetor equipment when installing a natural-gas fuel system on a school bus.
4. An installer shall meet or exceed the recommended guidelines provided by the manufacturers of all parts of a natural-gas fuel system when installing the natural-gas fuel system on a school bus.
5. An installer shall ensure that installation of a natural-gas fuel system on a school bus is performed by an individual who has proof of training provided by the manufacturer of the natural-gas fuel system or ASE alternative fuels certification.
6. If a school bus is converted from the use of gasoline or diesel fuel to the dedicated use of CNG, the installer shall remove the gasoline or diesel-fuel tank and accompanying gasoline or diesel-fuel system parts from the school bus.

- E. Natural-gas pressure vessel:** An installer shall use only a natural-gas pressure vessel that is certified by its manufacturer as meeting or exceeding the NGV2 standards and as being U.S. Department of Transportation or ANSI listed. An installer shall use the natural-gas pressure vessel manufacturer's recommended bracket.

F. Installing a natural-gas pressure vessel

1. An installer shall securely attach a rack to the frame of a school bus in the following manner:
 - a. By drilling no holes in the school bus frame that exceed the manufacturer's requirements; and
 - b. By using no welding on and applying no heat to the school bus frame.
2. When installing a natural-gas fuel system on a school bus, an installer shall locate the natural-gas pressure vessel and its appurtenances on the vehicle frame as follows:
 - a. Below the driver's or passengers' compartment;
 - b. So no part protrudes:
 - i. In front of the front axle,
 - ii. Beyond the outside face of the rear bumper, or
 - iii. Beyond the sides of the school bus;
 - c. Inside a rack; and
 - d. So the minimum clearance between the road and the lowest part of the natural-gas pressure vessel and its rack on a school bus loaded to its gross vehicle weight rating, is:
 - i. No fewer than 7 inches (17.5 mm) for a school bus with a wheel base fewer than or equal to 127 inches (323 mm); or
 - ii. No fewer than 9 inches (22.5 mm) for a school bus with a wheel base greater than 127 inches (323 mm).
3. If the natural-gas pressure vessel and its appurtenances are located behind the rear axle of the school bus, in addition to the requirements in subsection (F)(3), an installer shall locate the natural-gas pressure vessel as follows:
 - a. Below the floor line, and
 - b. Above the school bus' angle of departure.

- G. Protecting a natural-gas pressure vessel.** To protect a natural-gas pressure vessel and its appurtenances from damage, an installer shall:

1. Surround the natural-gas pressure vessel with a stone guard on all sides that are not protected by the natural barriers of the vehicle. The stone guard shall not be attached to the natural-gas pressure vessel. If the stone guard protects a valve, it shall be made of at least 16-gauge steel. If the stone guard does not protect a valve, it shall be made of at least 3/16-in. mesh with openings no greater than 1 in.;

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2. Place a resilient, non-absorbent gasket between the natural-gas pressure vessel and its brackets in a manner that prevents the brackets from directly contacting the natural-gas pressure vessel;
 3. Ensure that the weight of the natural-gas pressure vessel is not supported, in whole or in part, by an appurtenance; and
 4. Place a shield between, but not attached to, the natural-gas pressure vessel and the vehicle exhaust system if the natural-gas pressure vessel or the fuel lines are located fewer than 8 inches from the exhaust system. The shield shall be constructed of at least 18-gauge metal.
- H. Safety and check valves:** An installer shall equip a natural-gas fuel system with:
1. Either an automatic fuel supply shut-off valve that is placed between the pressure vessel fuel-pressure regulator and the fuel distribution assembly and activated by engine vacuum or oil pressure, or an electronic fuel injector; and
 2. Either a manual or automatically controlled shut-off valve that enables the natural-gas pressure vessel to be isolated from the remainder of the natural-gas fuel system. If a manual shut-off valve is used, it shall:
 - a. Have no more than 90° rotation from the opened to the closed position;
 - b. Have a red valve handle;
 - c. Be placed in an accessible location; and
 - d. Have "ESV" printed on the school bus at the access location to the manual shut-off valve, in 2-in. to 4-in., unshaded, red letters.
- I. Installation of fuel lines.** An installer shall:
1. Use fuel lines constructed of seamless stainless steel that has been tested and certified by the manufacturer to an operating pressure of 3600 PSI with a 4:1 safety factor;
 2. Mount and brace fuel lines to the vehicle frame in a manner that minimizes vibration;
 3. Secure fuel lines to the vehicle frame at least every 24 inches with rubber-lined fasteners;
 4. Protect fuel lines that pass through any structural member with rubber grommets, bulkhead fittings, or both;
 5. Cause fuel lines that run to the engine to follow the main frame channel; and
 6. Install an access door that is at least 70 square inches if access to the fill receptacle and fuel pressure gauge is through the school bus body. The words "CNG Fill" shall be printed on the school bus body, immediately above the access door, in 2-in. to 4-in., unshaded letters.
- J. Installation of Venting System.** An installer shall ensure that in addition to meeting the requirements in NFPA 52, all vent exits are aimed toward the ground.

Historical Note

New Section adopted by final rulemaking at 6 A.A.R. 4115, effective October 3, 2000 (Supp. 00-4). New Section R13-13-201 recodified from R17-9-201 with Section cross-references revised, at 20 A.A.R. 2083, effective July 25, 2014 (Supp. 14-3).

R13-13-202. Inspection and Maintenance of Compressed Natural Gas Fuel Systems

- A.** This Section applies to all school buses that are powered, in whole or in part, by CNG and are introduced into Arizona after the beginning enforcement date of these rules.
- B.** An owner shall not use a school bus equipped with a natural-gas fuel system to transport passengers until the natural-gas fuel system is inspected and approved by the Department. An

owner shall notify the Department when the owner obtains a school bus that needs to be inspected for compliance with these rules.

- C.** After the initial inspection conducted by the Department, an owner shall ensure that a school bus equipped with a natural-gas fuel system is inspected annually and under the following special circumstances:
 1. When the school bus is involved in an accident;
 2. When the natural-gas pressure vessel may have been damaged;
 3. When natural gas is smelled;
 4. When there is an unexpected loss of gas pressure, rattling, or other indication of looseness; or
 5. When the natural-gas pressure vessel is changed.
- D.** An owner shall ensure that an annual or special-circumstances inspection is conducted by the Department or an individual who has proof of training provided by the manufacturer of the natural-gas fuel system or ASE alternative-fuel certification.
- E.** An owner shall ensure that every inspection of a school bus equipped with a natural-gas fuel system assesses whether the natural-gas fuel system meets the safety standards in 13 A.A.C. 13, and NFPA 52. This assessment shall include:
 1. Leak-testing the natural-gas fuel system in compliance with NFPA 52 guidelines;
 2. Verifying that the pressure vessel is designed for storage of CNG;
 3. Verifying that the service life of the natural-gas pressure vessel has not expired;
 4. Verifying that the natural-gas pressure vessel is certified by its manufacturer as meeting or exceeding the NGV2 standards and as being U.S. Department of Transportation or ANSI listed;
 5. Verifying that all parts of the natural-gas fuel system are properly listed or approved; and
 6. Verifying that all parts of the natural-gas fuel system are installed in accordance with the manufacturer's instructions.
- F.** An owner shall ensure that an individual who conducts an inspection of a school bus equipped with a natural-gas fuel system completes a Compressed Natural Gas Safety Inspection Form, which is available from the Department, and certifies that the school bus meets all safety standards in 13 A.A.C. 13, and NFPA 52.
- G.** If it is necessary to condemn a natural-gas pressure vessel, the owner shall:
 1. Return the condemned natural-gas pressure vessel to its manufacturer; and
 2. Obtain a certificate from the manufacturer that states ownership of the natural-gas pressure vessel is transferred from the owner to the manufacturer.
- H.** An owner shall maintain each completed Compressed Natural Gas Safety Inspection Form in a separate file for each school bus for the service life of the school bus. If a school bus is transferred from one owner to another, the first owner shall transfer the completed inspection forms to the second owner.
- I.** An owner shall make the inspection forms maintained under subsection (H) available for review by the Department.

Historical Note

New Section adopted by final rulemaking at 6 A.A.R. 4115, effective October 3, 2000 (Supp. 00-4). New Section R13-13-202 recodified from R17-9-202 with Section cross-references revised, at 20 A.A.R. 2083, effective July 25, 2014 (Supp. 14-3).