**Section 438.APPENDIX E Tires through Wiring System**

a) TIRES

1) Tires on Any Steering Axle of a Power Unit

PROCEDURES/SPECIFICATIONS:

All tires on any steering axle of a power unit must be in good condition and used correctly. There must be at least 4/32 inch tread depth without any mixing of tire construction on the same axle. Buses must not be equipped with recapped or retreaded tires on any steering axle.

The following procedures apply only to tires found on any steering axle of a power unit:

Measure the tread depth at any point on a major tread groove for at least 4/32 inch tread.

Inspect tread or sidewall for exposed body ply or belt material.

Inspect tread or sidewall for separation.

Inspect tire for cuts that expose ply or belt material.

Inspect tire for the label "Not For Highway Use" or any other marking that would exclude its use on a steering axle.

Inspect tire to determine if it is a "tube-type radial". If it is, it must have "radial tube stem" markings. These markings include a red band around the tube stem, the word "radial" embossed in metal stems, or the word "radial" molded in rubber stems.

Inspect for any mixing of bias and radial tires on the same axle.

Inspect for tire flap that protrudes through the valve slot in rim and touches the stem.

Inspect for regrooved tires.

Inspect tire for boot, blowout patch or other ply repair.

Inspect tire load limit to determine if weight carried exceeds limit. This includes overloaded tire resulting from low air pressure.

Inspect tire for flat condition or noticeable leak (i.e., can be heard or felt).

Inspect buses for recapped or retreaded tires on steering axle.

Inspect tires to determine if they are so mounted or inflated that they come in contact with any part of the vehicle.

REJECT VEHICLE IF:

The following criteria apply only to tires found on any steering axle of a power unit:

Any tire with less than 4/32 inch tread when measured at any point on a major tread groove.

Any tire that has body ply or belt material exposed through the tread or sidewall.

Any tire that has any tread or sidewall separation.

Any tire that has a cut where the ply or belt material is exposed.

Any tire that is labeled "Not for Highway Use" or displaying other marking which would exclude its use on a steering axle.

Any tire with a tube-type radial tire without radial tube stem markings. These markings include a red band around the tube stem, the word "radial" embossed in metal stems, or the word "radial" molded in rubber stems.

Any tire has bias and radial tires mixed on the same axle.

Any tire where the tire flap protrudes through the valve slot in the rim and touches the stems.

Any tire that has been regrooved on the steering axle.

Any tire with a boot, blowout patch or other ply repair.

Any tire in which the weight carried exceeds tire load limit. This includes overloaded tires resulting from low air pressure.

Any tire that is flat or has a noticeable leak (i.e., can be heard or felt).

Any tire on the steering axle of a bus that is recapped or retreaded.

Any tire that is so mounted or inflated that it comes in contact with any part of the vehicle.

2) All Tires Other Than Those Found on the Steering Axle of a Power Unit

PROCEDURES/SPECIFICATIONS:

All tires other than those found on the steering axle of a power unit must have at least 2/32 inch tread depth, be in good condition and be used correctly.

The following procedures apply to all tires other than those found on the steering axle of a power unit:

Inspect tire load limit to determine if weight carried exceeds limit. This includes overloaded tire resulting from low air pressure or tires of unequal size on the same side of the axle.

Inspect tire for flat condition or noticeable leak (i.e., can be heard or felt).

Inspect tread or sidewall for exposed body ply or belt material.

Inspect tread or sidewall for separation.

Inspect tire for cuts that expose ply or belt material.

Inspect tires to determine if they are so mounted or inflated that they come in contact with any part of the vehicle, including a tire that contacts its mate.

Inspect tire for the marking "Not For Highway Use" or other marking having like meaning.

Measure tread depth at any point on a major tread groove for at least 2/32 inch tread.

REJECT VEHICLE IF:

The following criteria applies to all tires other than those found on the steering axle of a power unit:

Any tire in which the weight carried exceeds tire load limit. This includes overloaded tires resulting from low air pressure or tires of unequal size on the same side of the axle.

Any tire that is flat or has a noticeable leak (i.e., can be heard or felt).

Any tire that has body ply or belt material exposed through the tread of sidewall.

Any tire that has tread or sidewall separation.

Any tire that has a cut where the ply or belt material is exposed.

Any tire that is so mounted or inflated that it comes in contact with any part of the vehicle, including any tire that contacts its mate.

Any tire is marked "Not For Highway Use" or has other markings with like meaning.

Any tire with less than 2/32 inch tread when measured at any point on a major tread groove.

b) WARNING DEVICES

PROCEDURES/SPECIFICATIONS:

Warning devices shall consist of (at a minimum):

3 liquid-burning flares or 3 red electric lanterns or 3 portable red emergency reflectors that meet FMVSS 125.

3 red burning 15 minute fusees. (If red electric lanterns or portable red reflectors are used to meet the requirements of the above paragraph, fusees are not required.)

2 red cloth flags or 2 portable red emergency reflectors that conform to FMVSS 125 (in addition to the emergency reflectors authorized in the first paragraph above). (See IVC Section 12-702(a).)

REJECT VEHICLE IF:

Warning devices are missing.

Warning device kit is not complete.

c) WHEELS AND RIMS

1) Housings

PROCEDURES/SPECIFICATIONS:

Full open type attached to floor sheet to prevent water, fumes or dust from entering the body. Inspect wheel housing. Housing must not come in contact with any portion of the wheel or tire.

Inspect tire and road wheel assemblies.

REJECT VEHICLE IF:

Wheel housing contacts any portion of wheel or tire.

Wheel housings are not securely attached.

Holes are present.

A tire or wheel is rubbing against any portion of the suspension, chassis or body.

2) Lock or Side Ring

PROCEDURES/SPECIFICATIONS:

All lock and side rings must be in good condition, properly seated and matched correctly with other parts of the wheel and rim.

AGENCY NOTE: Caution must be taken around any lock ring damaged or not properly installed, as they can dislodge and cause injury.

Inspect lock or side rings for bent, broken, cracked or sprung condition.

Inspect lock or side rings for proper seating.

Inspect lock or side rings to determine if they are matched correctly with other wheel and rim parts.

REJECT VEHICLE IF:

Lock or side rings are bent, broken, cracked or sprung.

Improperly seated lock or side rings are present.

Lock or side rings are mismatched.

3) Wheels and Rims

PROCEDURES/SPECIFICATIONS:

All wheels and rims must be in good condition, with no elongated bolt holes.

Inspect wheels and rims for cracked or broken condition.

Inspect wheels and rims for elongated bolt holes.

REJECT VEHICLE IF:

Wheels or rims are cracked or broken.

Elongated bolt holes are present.

4) Fasteners (both Spoke and Disc Wheels)

PROCEDURES/SPECIFICATIONS:

All fasteners (both spoke and disc wheels) must be present, securely tightened, in good condition and effective.

Inspect all fasteners for their presence and secure tightness.

Inspect all fasteners for broken, cracked, stripped or any other ineffective condition.

REJECT VEHICLE IF:

Any missing or loose fasteners.

Any cracked, broken, stripped or otherwise ineffective fasteners.

5) Welds

PROCEDURES/SPECIFICATIONS:

All wheels and rims must be free of cracked welds and any improperly welded repairs.

Inspect any welds attaching disc wheel disc to rim.

Inspect any welds attaching tubeless demountable rim to adapter.

Inspect for welded repairs to any aluminum wheels on steering axles.

Inspect any steel disc wheels mounted on the steering axle for any welded repair other than disc to rim attachment.

REJECT VEHICLE IF:

Any cracks in welds attaching disc wheel disc to rim.

Any cracks in welds attaching tubeless demountable rim to adapter.

Any welded repair to aluminum wheels on a steering axle.

Any welded repair other than disc to rim attachment to steel disc wheels mounted on the steering axle.

d) WINDOWS OTHER THAN WINDSHIELD

PROCEDURES/SPECIFICATIONS:

Safety glazing is required in any opening where vehicle manufacturer installed glazing.

REJECT VEHICLE IF:

Glazing is missing (if vehicle is so equipped).

e) Windshield

PROCEDURES/SPECIFICATIONS:

Enforcement area does not include a two inch border at the top, a one inch border at each side and the area below the topmost portion of the steering wheel.

The following procedures apply:

Inspect windshield glazing for any discoloration.

Exception: Any coloring or tinting applied at time of manufacture is acceptable.

Inspect windshield glazing for any cracks.

Exception: A crack that measures less than ¼ inch wide and is not intersected by any other crack is acceptable.

Inspect windshield glazing for any damaged area.

Exception: A damaged area that measures no more than ¾ inch in diameter and is no closer than 3 inches to any other damaged area is acceptable.

Inspect windshield glazing for any vision reducing matter such as labels, stickers, decalcomania, etc.

Exception: Stickers required by law may be affixed at the bottom or sides of the windshield provided they do not extend upward more than 4½ inches from the bottom of the windshield and are located outside the driver's sight lines to the road and highway signs or signals.

REJECT VEHICLE IF:

Any discoloration of the windshield glazing exists (see exception listed above).

Any cracks exist on the windshield glazing (see exception listed above).

Any damaged areas exist on the windshield glazing (see exception listed above).

Any vision reducing matter such as labels, stickers, decalcomania, etc. located on the windshield glazing (see exception listed above).

f) WINDSHIELD WASHER

PROCEDURES/SPECIFICATIONS:

Windshield washer fluid must effectively clean entire area covered by both wipers.

REJECT VEHICLE IF:

Windshield washer fluid does not effectively clean entire area.

g) WINDSHIELD WIPERS

PROCEDURES/SPECIFICATIONS:

Wipers must be operable. Inspect metal parts of wiper blade or arm.

REJECT VEHICLE IF:

Windshield wipers do not cover entire cleaning area.

Blades are damaged, torn or hardened.

Rubber wiping element has broken down.

Metal parts of blade or arm are missing, severely damaged or contact glazing.

h) WIRING SYSTEM

PROCEDURES/SPECIFICATIONS:

Inspect the wires, supports and connections in the wiring system.

REJECT VEHICLE IF:

Wiring is frayed.

Wiring contacts any moving part of the vehicle.