§ 229.99 Safety hangers.

Drive shafts shall have safety hang-

ers.

§ 229.101 Engines.

(a) The temperature and pressure
alarms, controls and related switches
of internal combustion engines shall
function properly.

(b) Whenever an engine has been shut-
down due to mechanical or other prob-
lems, a distinctive warning notice giv-
ing reason for the shut-down shall be
conspicuously attached near the engine
starting control until repairs have been
made.

(c) Wheel slip/slide protection shall
be provided on a locomotive with an
engine displaying a warning notice
whenever required by § 229.115(b).

STEAM GENERATORS

§ 229.103 Safe working pressure; factor
of safety.

The safe working pressure for each
steam generator shall be fixed by the
chief mechanical officer of the carrier.
The minimum factor of safety shall be
four. The fixed safe working pressure
shall be indicated on FRA Form F 6180–
49A.

§ 229.105 Steam generator number.

An identification number shall be
marked on the steam generator’s sepa-
ator and that number entered on FRA
Form F 6180–49A.

§ 229.107 Pressure gauge.

(a) Each steam generator shall have
an illuminated steam gauge that cor-
rectly indicates the pressure. The
steam pressure gauge shall be grad-
uated to not less than one and one-half
times the allowed working pressure of
the steam generator.

(b) Each steam pressure gauge on a
steam generator shall have a siphon
that prevents steam from entering the
gauge. The pipe connection shall di-
rectly enter the separator and shall be
steam tight between the separator and
the gauge.

§ 229.109 Safety valves.

Every steam generator shall be
equipped with at least two safety valves
that have a combined capacity
to prevent an accumulation of pressure
of more than five pounds per square
inch above the allowed working pres-
sure. The safety valves shall be inde-
pendently connected to the separator
and located as closely to the separator
as possible without discharging inside
of the generator compartment. The
ends of the safety valve discharge lines
shall be located or protected so that
discharged steam does not create a haz-
ard.

§ 229.111 Water-flow indicator.

(a) Steam generators shall be
equipped with an illuminated visual re-
turn water-flow indicator.

(b) Steam generators shall be
equipped with an operable test valve or
other means of determining whether
the steam generator is filled with
water. The fill test valve may not dis-
charge steam or hot water into the
steam generator compartment.

§ 229.113 Warning notice.

Whenever any steam generator has
been shut down because of defects, a
distinctive warning notice giving rea-
sons for the shut-down shall be con-
spicuously attached near the steam
generator compartment until the
necessory repairs have been made. The
locomotive in which the steam gener-
ator displaying a warning notice is lo-
cated may continue in service until the
next periodic inspection.

CABS AND CAB EQUIPMENT

§ 229.115 Slip/slide alarms.

(a) Except for MU locomotives, each
locomotive used in road service shall
be equipped with a device that provides
an audible or visual alarm in the cab of
either slipping or sliding wheels on
powered axles under power. When two
or more locomotives are coupled in
multiple or remote control, the wheel
slip/slide alarm of each locomotive
shall be shown in the cab of the con-
trolling locomotive.

(b) Except as provided in § 229.9, an
equipped locomotive may not be dis-
patched in road service, or continue in
road service following a daily inspec-
tion, unless the wheel slip/slide prote-
tive device of whatever type—