

## § 236.1003

(1) It is otherwise explicitly excepted by this subpart; or

(2) The applicable PTCSP, as defined under § 236.1003 and approved by FRA under § 236.1015, provides for such an exception per § 236.1013.

### § 236.1003 Definitions.

(a) Definitions contained in subparts G and H of this part apply equally to this subpart.

(b) The following definitions apply to terms used only in this subpart unless otherwise stated:

*After-arrival mandatory directive* means an authority to occupy a track which is issued to a train that is not effective and not to be acted upon until after the arrival and passing of a train, or trains, specifically identified in the authority.

*Associate Administrator* means the FRA Associate Administrator for Railroad Safety/Chief Safety Officer.

*Class I railroad* means a railroad which in the last year for which revenues were reported exceeded the threshold established under regulations of the Surface Transportation Board (49 CFR part 1201.1-1 (2008)).

*Cleartext* means the un-encrypted text in its original, human readable, form. It is the input of an encryption or encipher process, and the output of an decryption or decipher process.

*Controlling locomotive* means *Locomotive, controlling*, as defined in § 232.5 of this chapter.

*Host railroad* means a railroad that has effective operating control over a segment of track.

*Interoperability* means the ability of a controlling locomotive to communicate with and respond to the PTC railroad's positive train control system, including uninterrupted movements over property boundaries.

*Limited operations* means operations on main line track that have limited or no freight operations and are approved to be excluded from this subpart's PTC system implementation and operation requirements in accordance with § 236.1019(c);

*Main line* means, except as provided in § 236.1019 or where all trains are limited to restricted speed within a yard or terminal area or on auxiliary or in-

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dustry tracks, a segment or route of railroad tracks:

(1) Of a Class I railroad, as documented in current timetables filed by the Class I railroad with the FRA under § 217.7 of this title, over which 5,000,000 or more gross tons of railroad traffic is transported annually; or

(2) Used for regularly scheduled intercity or commuter rail passenger service, as defined in 49 U.S.C. 24102, or both. Tourist, scenic, historic, or excursion operations as defined in part 238 of this chapter are not considered intercity or commuter passenger service for purposes of this part.

*Main line track exclusion addendum* ("MTEA") means the document submitted under §§ 236.1011 and 236.1019 requesting to designate track as other than main line.

*Medium speed* means, *Speed, medium*, as defined in subpart G of this part.

*NPI* means a Notice of Product Intent ("NPI") as further described in § 236.1013.

*PTC* means positive train control as further described in § 236.1005.

*PTCDP* means a PTC Development Plan as further described in § 236.1013.

*PTCIP* means a PTC Implementation Plan as required under 49 U.S.C. 20157 and further described in § 236.1011.

*PTCPVL* means a PTC Product Vendor List as further described in § 236.1023.

*PTCSP* means a PTC Safety Plan as further described in § 236.1015.

*PTC railroad* means each Class I railroad and each entity providing regularly scheduled intercity or commuter rail passenger transportation required to implement or operate a PTC system.

*PTC System Certification* means certification as required under 49 U.S.C. 20157 and further described in §§ 236.1009 and 236.1015.

*Request for Amendment* ("RFA") means a request for an amendment of a plan or system made by a PTC railroad in accordance with § 236.1021.

*Request for Expedited Certification* ("REC") means, as further described in § 236.1031, a request by a railroad to receive expedited consideration for PTC System Certification.

*Restricted speed* means, *Speed, restricted*, as defined in subpart G of this part.

*Safe State* means a system state that, when the system fails, cannot cause death, injury, occupational illness, or damage to or loss of equipment or property, or damage to the environment.

*Segment of track* means any part of the railroad where a train operates.

*Temporal separation* means that passenger and freight operations do not operate on any segment of shared track during the same period and as further defined under § 236.1019 and the process or processes in place to assure that result.

*Tenant railroad* means a railroad, other than a host railroad, operating on track upon which a PTC system is required.

*Track segment* means segment of track.

*Type Approval* means a number assigned to a particular PTC system indicating FRA agreement that the PTC system could fulfill the requirements of this subpart.

*Train* means one or more locomotives, coupled with or without cars.

**§ 236.1005 Requirements for Positive Train Control systems.**

(a) *PTC system requirements.* Each PTC system required to be installed under this subpart shall:

- (1) Reliably and functionally prevent:
  - (i) Train-to-train collisions—including collisions between trains operating over rail-to-rail at-grade crossings in accordance with the following risk-based table or alternative arrangements providing an equivalent level of safety as specified in an FRA approved PTCSPP:

Crossing type	Max speed*	Protection required
(A) Interlocking—one or more PTC routes intersecting with one or more non-PTC routes.	≤ 40 miles per hour .....	Interlocking signal arrangement in accordance with the requirements of subparts A–G of this part and PTC enforced stop on PTC routes.
(B) Interlocking—one or more PTC routes intersecting with one or more non-PTC routes.	> 40 miles per hour .....	Interlocking signal arrangement in accordance with the requirements of subparts A–G of this part, PTC enforced stop on all PTC routes, and either the use of other than full PTC technology that provides positive stop enforcement or a split-point derail incorporated into the signal system accompanied by 20 miles per hour maximum allowable speed on the approach of any intersecting non-PTC route.
(C) Interlocking—all PTC routes intersecting.	Any speed .....	Interlocking signal arrangements in accordance with the requirements of subparts A–G of this part, and PTC enforced stop on all routes.

(ii) Overspeed derailments, including derailments related to railroad civil engineering speed restrictions, slow orders, and excessive speeds over switches and through turnouts;

(iii) Incursions into established work zone limits without first receiving appropriate authority and verification from the dispatcher or roadway worker in charge, as applicable and in accordance with part 214 of this chapter; and

(iv) The movement of a train through a main line switch in the improper position as further described in paragraph (e) of this section.

(2) Include safety-critical integration of all authorities and indications of a wayside or cab signal system, or other similar appliance, method, device, or system of equivalent safety, in a manner by which the PTC system shall provide associated warning and enforce-

ment to the extent, and except as, described and justified in the FRA approved PTCDP or PTCSPP, as applicable;

(3) As applicable, perform the additional functions specified in this subpart;

(4) Provide an appropriate warning or enforcement when:

(i) A derail or switch protecting access to the main line required by § 236.1007, or otherwise provided for in the applicable PTCSPP, is not in its derailling or protecting position, respectively;

(ii) A mandatory directive is issued associated with a highway-rail grade crossing warning system malfunction as required by §§ 234.105, 234.106, or 234.107;

(iii) An after-arrival mandatory directive has been issued and the train or