

§236.1011

track segments pursuant to §236.1006, as well as impediments to completion if each of the goals.

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§236.1011 PTC Implementation Plan content requirements.

(a) Contents. A PTCIP filed pursuant to this subpart shall, at a minimum, describe:

- (1) The functional requirements that the proposed system must meet;
- (2) How the PTC railroad intends to comply with §§236.1009(c) and (d);
- (3) How the PTC system will provide for interoperability of the system between the host and all tenant railroads on the track segments required to be equipped with PTC systems under this subpart and:
 - (i) Include relevant provisions of agreements, executed by all applicable railroads, in place to achieve interoperability;
 - (ii) List all methods used to obtain interoperability; and
 - (iii) Identify any railroads with respect to which interoperability agreements have not been achieved as of the time the plan is filed, the practical obstacles that were encountered that prevented resolution, and the further steps planned to overcome those obstacles;
- (4) How, to the extent practical, the PTC system will be implemented to address areas of greater risk to the public and railroad employees before areas of lesser risk;
- (5) The sequence and schedule in which track segments will be equipped and the basis for those decisions, and shall at a minimum address the following risk factors by track segment:
 - (i) Segment traffic characteristics such as typical annual passenger and freight train volume and volume of poison- or toxic-by-inhalation (PIH or TIH) shipments (loads, residue);
 - (ii) Segment operational characteristics such as current method of operation (including presence or absence of a block signal system), number of tracks, and maximum allowable train speeds, including planned modifications; and

(iii) Route attributes bearing on risk, including ruling grades and extreme curvature;

(6) The following information relating to rolling stock:

- (i) What rolling stock will be equipped with PTC technology;
- (ii) The schedule to equip that rolling stock by December 31, 2015;
- (iii) All documents and information required by §236.1006; and
- (iv) Unless the tenant railroad is filing its own PTCIP, the host railroad's PTCIP shall:
 - (A) Attest that the host railroad has made a formal written request to each tenant railroad requesting identification of each item of rolling stock to be PTC system equipped and the date each will be equipped; and
 - (B) Include each tenant railroad's response to the host railroad's written request made in accordance with paragraph (a)(6)(iv)(A) of this section;

(7) The number of wayside devices required for each track segment and the installation schedule to complete wayside equipment installation by December 31, 2015;

(8) Identification of each track segment on the railroad as mainline or non-mainline track. If the PTCIP includes an MTEA, as defined by §236.1019, the PTCIP should identify the tracks included in the MTEA as main line track with a reference to the MTEA;

(9) To the extent the railroad determines that risk-based prioritization required by paragraph (a)(4) of this section is not practical, the basis for this determination; and

(10) The dates the associated PTCDP and PTCSP, as applicable, will be submitted to FRA in accordance with §236.1009.

(b) Additional Class I railroad PTCIP requirements. Each Class I railroad shall include:

(1) In its PTCIP a strategy for full deployment of its PTC system, describing the criteria that it will apply in identifying additional rail lines on its own network, and rail lines of entities that it controls or engages in joint operations with, for which full or partial deployment of PTC technologies is appropriate, beyond those required to be

equipped under this subpart. Such criteria shall include consideration of the policies established by 49 U.S.C. 20156 (railroad safety risk reduction program), and regulations issued thereunder, as well as non-safety business benefits that may accrue.

(2) In the Technology Implementation Plan of its Risk Reduction Program, when first required to be filed in accordance with 49 U.S.C. 20156 and any regulation promulgated thereunder, a specification of rail lines selected for full or partial deployment of PTC under the criteria identified in its PTCIP.

(3) Nothing in this paragraph shall be construed to create an expectation or requirement that additional rail lines beyond those required to be equipped by this subpart must be equipped or that such lines will be equipped during the period of primary implementation ending December 31, 2015.

(4) As used in this paragraph, “partial implementation” of a PTC system refers to use, pursuant to subpart H of this part, of technology embedded in PTC systems that does not employ all of the functionalities required by this subpart.

(c) *FRA review.* Within 90 days of receipt of a PTCIP, the Associate Administrator will approve or disapprove of the plan and notify in writing the affected railroad or other entity. If the PTCIP is not approved, the notification will include the plan’s deficiencies. Within 30 days of receipt of that notification, the railroad or other entity that submitted the plan shall correct all deficiencies and resubmit the plan in accordance with § 236.1009 and paragraph (a) of this section, as applicable.

(d) *Subpart H.* A railroad that elects to install a PTC system when not required to do so may elect to proceed under this subpart or under subpart H of this part.

(e) Upon receipt of a PTCIP, NPI, PTCDP, or PTCSP, FRA posts on its public web site notice of receipt and reference to the public docket in which a copy of the filing has been placed. FRA may consider any public comment on each document to the extent practicable within the time allowed by law and without delaying implementation of PTC systems.

(f) The PTCIP shall be maintained to reflect the railroad’s most recent PTC deployment plans until all PTC system deployments required under this subpart are complete.

[75 FR 2699, Jan. 15, 2010, as amended at 75 FR 59117, Sept. 27, 2010]

§ 236.1013 PTC Development Plan and Notice of Product Intent content requirements and Type Approval.

(a) For a PTC system to obtain a Type Approval from FRA, the PTCDP shall be filed in accordance with § 236.1009 and shall include:

(1) A complete description of the PTC system, including a list of all PTC system components and their physical relationships in the subsystem or system;

(2) A description of the railroad operation or categories of operations on which the PTC system is designed to be used, including train movement density (passenger, freight), operating speeds (including a thorough explanation of intended compliance with § 236.1007), track characteristics, and railroad operating rules;

(3) An operational concepts document, including a list with complete descriptions of all functions which the PTC system will perform to enhance or preserve safety;

(4) A document describing the manner in which the PTC system architecture satisfies safety requirements;

(5) A preliminary human factors analysis, including a complete description of all human-machine interfaces and the impact of interoperability requirements on the same;

(6) An analysis of the applicability to the PTC system of the requirements of subparts A through G of this part that may no longer apply or are satisfied by the PTC system using an alternative method, and a complete explanation of the manner in which those requirements are otherwise fulfilled;

(7) A prioritized service restoration and mitigation plan and a description of the necessary security measures for the system;

(8) A description of target safety levels (e.g., MTTHE for major subsystems as defined in subpart H of this part), including requirements for system availability and a description of all backup