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required by §236.921, the employer shall, at a minimum:

(1) Identify the specific goals of the training program with regard to the target population (craft, experience level, scope of work, etc.), task(s), and desired success rate;

(2) Based on a formal task analysis, identify the installation, maintenance, repair, modification, inspection, testing, and operating tasks that must be performed on a railroad’s products. This includes the development of failure scenarios and the actions expected under such scenarios;

(3) Develop written procedures for the performance of the tasks identified;

(4) Identify the additional knowledge, skills, and abilities above those required for basic job performance necessary to perform each task;

(5) Develop a training curriculum that includes classroom, simulator, computer-based, hands-on, or other formally structured training designed to impart the knowledge, skills, and abilities identified as necessary to perform each task;

(6) Prior to assignment of related tasks, require all persons mentioned in §236.921(a) to successfully complete a training curriculum and pass an examination that covers the product and appropriate rules and tasks for which they are responsible (however, such persons may perform such tasks under the direct onsite supervision of a qualified person prior to completing such training and passing the examination);

(7) Require periodic refresher training at intervals specified in the PSP that includes classroom, simulator, computer-based, hands-on, or other formally structured training and testing, except with respect to basic skills for which proficiency is known to remain high as a result of frequent repetition of the task; and

(8) Conduct regular and periodic evaluations of the effectiveness of the training program specified in §236.923(a)(1) verifying the adequacy of the training material and its validity with respect to current railroads products and operations.

§ 236.925 Training specific to control office personnel.

Any person responsible for issuing or communicating mandatory directives in territory where products are or will be in use must be trained in the following areas, as applicable:

(a) Instructions concerning the interface between the computer-aided dispatching system and the train control system, with respect to the safe movement of trains and other on-track equipment;

(b) Railroad operating rules applicable to the train control system, including provision for movement and protection of roadway workers, unequipped trains, trains with failed or cut-out train control onboard systems, and other on-track equipment; and

(c) Instructions concerning control of trains and other on-track equipment in case the train control system fails, including periodic practical exercises or simulations, and operational testing under part 217 of this chapter to ensure the continued capability of the personnel to provide for safe operations under the alternative method of operation.

§ 236.927 Training specific to locomotive engineers and other operating personnel.

(a) What elements apply to operating personnel? Training provided under this subpart for any locomotive engineer or other person who participates in the operation of a train in train control territory must be defined in the PSP and the following elements must be addressed:

(1) Familiarization with train control equipment onboard the locomotive and the functioning of that equipment as part of the system and in relation to other onboard systems under that person’s control;

(2) Any actions required of the onboard personnel to enable, or enter
data to, the system, such as consist
data, and the role of that function in
the safe operation of the train;
(3) Sequencing of interventions by
the system, including pre-enforcement
notification, enforcement notification, penalty
application initiation and
post-penalty application procedures;
(4) Railroad operating rules applica-
tion to the train control system, includ-
ing provisions for movement and pro-
tection of any unequipped trains, or
trains with failed or cut-out train con-
trol onboard systems and other on-
track equipment;
(5) Means to detect deviations from
proper functioning of onboard train
control equipment and instructions re-
garding the actions to be taken with
respect to control of the train and noti-
fication of designated railroad per-
sonnel; and
(6) Information needed to prevent un-
intentional interference with the prop-
er functioning of onboard train control
equipment.
(b) How must locomotive engineer train-
ing be conducted? Training required
under this subpart for a locomotive en-
gineer, together with required records,
must be integrated into the program of
training required by part 240 of this
chapter.
(c) What requirements apply to full
automatic operation? The following spe-
cial requirements apply in the event a
train control system is used to effect
full automatic operation of the train:
(1) The PSP must identify all safety
hazards to be mitigated by the loco-
motive engineer.
(2) The PSP must address and de-
scribe the training required with provi-
sions for the maintenance of skills pro-
ficiency. As a minimum, the training
program must:
(i) As described in §236.923(a)(2), de-
velop failure scenarios which incor-
porate the safety hazards identified in
the PSP, including the return of train
operations to a fully manual mode;
(ii) Provide training, consistent with
§236.923(a), for safe train operations
under all failure scenarios and identi-
fied safety hazards that affect train op-
erations;
(iii) Provide training, consistent with
§236.923(a), for safe train operations
under manual control; and
(iv) Consistent with §236.923(a), en-
sure maintenance of manual train op-
erating skills by requiring manual
starting and stopping of the train for
an appropriate number of trips and by
one or more of the following methods:
(A) Manual operation of a train for a
4-hour work period;
(B) Simulated manual operation of a
train for a minimum of 4 hours in a
Type I simulator as required; or
(C) Other means as determined fol-
lowing consultation between the rail-
road and designated representatives of
the affected employees and approved
by the FRA. The PSP must designate
the appropriate frequency when man-
ual operation, starting, and stopping
must be conducted, and the appropriate
frequency of simulated manual oper-
ation.
§ 236.929 Training specific to roadway
workers.
(a) How is training for roadway workers
to be coordinated with part 214? Training
required under this subpart for a road-
way worker must be integrated into
the program of instruction required
under part 214, subpart C of this chap-
ter ("Roadway Worker Protection"),
consistent with task analysis require-
ments of §236.923. This training must
provide instruction for roadway work-
ers who provide protection for them-
selves or roadway work groups.
(b) What subject areas must roadway
worker training include? (1) Instruction
for roadway workers must ensure recog-
nition of processor-
based signal and train control equip-
ment in establishing protection for
roadway workers and their equipment.
(2) Instruction for roadway workers
must ensure recognition of processor-
based signal and train control equip-
ment on the wayside and an under-
standing of how to avoid interference
with its proper functioning.
(3) Instructions concerning the rec-
ognition of system failures and the pro-
vision of alternative methods of on-
track safety in case the train control
system fails, including periodic prac-
tical exercises or simulations and oper-
ational testing under part 217 of this
chapter to ensure the continued capa-
bility of roadway workers to be free
from the danger of being struck by a