



TRAINING DESIGN DOCUMENT

Operations Testing – Blue Signal Protection (301)

Project Start Date: 10.12.2015

Department/Craft: Mechanical

Revision History

| Date | Description of Change | By |
|------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-----------|
| 10/12/2015 | New Designer Document created. Blue Signal Protection (301) is being developed as a stand-alone WBT, designed to be integrated into the Operations Testing – Safety Absolutes course, or as a separate module, as part of operations safety available courses for supervisors. | Sean Ward |
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Overview

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|------------------------|----------------------------------|------------------------------------|------------------------|
| Course name: | Introduction to Safety Absolutes | Target audience: | Operations Supervisors |
| Course length: | Total Seat Time: 20 minutes | Target implementation date: | 12/15/2015 |
| Level of Effort | 2 | LSO Course Identifier | ME3OPSSAFETY |
| Prerequisites: | N/A | | |

Safety Critical Training Requirements

List all relevant CFRs that are included in this course:

CFRs: 217.9(b), 218

Course Description

The goal of this WBT is to provide a review for testing supervisors on the critical importance of operations testing and observing the application by employees of the Safety Absolute Blue Signal Protection (301) in the workplace. The course defines this safety absolute, defines how and where employees must apply Blue Signal Protection and explores how supervisors audit the work environment to ensure strict adherence to the safety absolute by all employees, as required.

Method of Delivery**Primary Methods of Delivery (choose all that apply)**

WBT ILT Video/DVD Lab/Simulation OJT Correspondence

Other Anticipated Components (choose all that apply)

Exam 3D Model Quick Reference Card Newsletter Handouts Tablet Activities

Other (Please Specify) Check Your Knowledge questions as a component of the course. There is no formal assessment required for this course.

Performance Objectives

1. Define the purpose of Blue Signal Protection (301).
 2. Review the critical importance of operations testing to verify employees are applying Blue Signal Protection correctly in the workplace, when required.
 3. Identify the operations testing requirements for verifying Blue Signal Protection is being correctly applied in the workplace.
 4. Reinforce course content with knowledge check questions.
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Course Assessment Type

Written Performance-based

Course Considerations

Class Size:

- WBT

Instructors:

- N/A

Assumptions:

- Participants will have access to a device to view the course.

Barriers:

- N/A

“Approaching Others” Exposures

The following exposures related to “Approaching Others’ are included in this course:

Line of fire Pinch point Walking/path of travel Ascending/descending Life-saving processes

Comments: N/A

Course Lesson Summary

This course will include the following. [The referenced rules are from the Operations Testing Reference Guide and Mechanical Safety Rules Guide].

| Lesson #/Name | Lesson Summary | Lesson Length |
|---------------------------------------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|---------------|
| 1. Welcome to Blue Signal Protection (301) | Introduces the Safety Absolute Blue Signal Protection and defines the purpose of this safety absolute. | 2 mins. |
| 2. Operations Testing | Reviews the importance of operations testing at BNSF including the purpose and critical need for supervisors to verify employees are applying Blue Signal Protection correctly in the workplace, when required. | 3 mins. |
| 3. Applying Blue Signal Protection | Identifies the operations testing requirements employees must meet when applying Blue Signal Protection in the workplace, when required. | 10 mins. |
| 4. Knowledge Check | Random knowledge check questions to reinforce the course content. | 5 mins. |

Content Outline

This course will include the following.

| Lesson One: Welcome to Blue Signal Protection (301) | | Timing: 2 mins. |
|-----------------------------------------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|---------------------------|
| Element | Details | SME assigned |
| Referenced Rules | Refer to Referenced Rules section of this document. | Todd Dodgin and Ed Holman |
| Learning Objective(s) | 1. Define the purpose of Blue Signal Protection (301). <ul style="list-style-type: none"> • Identify the testing segments/rules associated with Blue Signal Protection. • Review the technical guides that provide requirements for this safety absolute. | |
| Lesson Outline | Welcome and introduction to the course. <ul style="list-style-type: none"> • Course objectives • Course navigation • Introduction to the Operations Testing • Introduction to the Blue Signal Protection (301) | |
| Instructional Strategy | This lesson will use direct instruction as its main strategy with corresponding audio. Text will be used to compliment the audio, but will not be an exact mirror. | |
| Evaluation | There is no formal evaluation tool for this lesson. | |

| Lesson Two: Operations Testing | | Timing: 3 mins. |
|--------------------------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|---------------------------|
| Element | Details | SME assigned |
| Referenced Rules | Refer to Referenced Rules section in this document. | Todd Dodgin and Ed Holman |
| Learning Objective(s) | 2. Review the critical importance of operations testing to verify employees are applying Blue Signal Protection correctly in the workplace, when required. | |
| Lesson Outline | <p>Introduce the importance of operations testing and observing employees are applying Blue Signal Protection correctly in the workplace.</p> <ul style="list-style-type: none"> • Testing Segments/Applicable Rules for Blue Signal Protection (301) • Importance of observing and verifying employee application of Blue Signal Protection, as required. | |
| Instructional Strategy | This lesson will use direct instruction as its main strategy with corresponding audio. Text will be used to compliment the audio, but will not be an exact mirror. | |
| Evaluation | There is no formal evaluation tool for this lesson. | |

| Lesson Three: Applying Blue Signal Protection | | Timing: 10 mins. |
|-----------------------------------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|---------------------------|
| Element | Details | SME assigned |
| Referenced Rules | N/A | Todd Dodgin and Ed Holman |
| Learning Objective(s) | 3. Identify the operations testing requirements for successfully observing and verifying Blue Signal Protection is being correctly applied in the workplace. | |
| Lesson Outline | <p>Applying Blue Signal Protection in the workplace:</p> <ul style="list-style-type: none"> • Protection on Main Tracks and Other Than Main Tracks • Derail Protection • RCL Protection • Blue Signal Visibility • Flagging Locomotives • ID Tags • Locomotive Movement | |

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|-------------------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------|--|
| | <ul style="list-style-type: none"> Distributed Power Locomotives | |
| Instructional Strategy | This lesson will use direct instruction as its main strategy with corresponding audio. Text will be used to compliment the audio, but will not be an exact mirror. | |
| Evaluation | There is no formal evaluation tool for this lesson. | |

| Lesson Three: Knowledge Check | | Timing: 5 mins. |
|-------------------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------|---------------------------|
| Element | Details | SME assigned |
| Referenced Rules | N/A | Todd Dodgin and Ed Holman |
| Learning Objective(s) | 4. Reinforce the course content with knowledge check questions. | |
| Lesson Outline | Random knowledge check questions (multiple choice and T/F) | |
| Instructional Strategy | This lesson will use direct instruction as its main strategy and does not use audio. Learner selects and submits answers and is provided correct or incorrect response. | |
| Evaluation | There is no formal evaluation tool for this lesson. | |

Examination Requirements

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|----------------------------------------------------------------------------------------------------------------------------------------|-----------------------------------------------|------------------------------------------------------------------------|----|-----------------------------------|----|
| Which rule specifies an exam requirement? | None. | | | | |
| What is the % passing score? (Std: 80%) | N/A | Questions randomized? | No | Answer choices randomized? | No |
| How many total attempts are allowed? | Unlimited | Immediately allow retaking of missed questions? | | | |
| Time frame between first/second attempt | <input checked="" type="checkbox"/> Immediate | <input type="checkbox"/> After one calendar day, not to exceed 90 days | | | |
| Time frame between first/second attempt and any other allowable attempts (i.e. 1 calendar day, 1 month, 6 months, 1 year, etc.) | | | | | |
| Other Exam-related Requirements? (i.e., printed, # of versions) | | | | | |

Project Team

Tasks, ownership and scheduling for this course are as follows:

| Project Team | | Contact Info |
|-----------------|------------------------------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Content Owner | Joe Mahoney | Joseph.Mahoney@BNSF.com |
| SME(s) | John Smith, Todd Dodgin, Ed Holman | John.Smith@bnsf.com Todd.Dodgin@BNSF.com Edward.Holman@BNSF.com |
| ISD/Developer | Sean Ward | SeanWard2@bnsf.com |
| Project Manager | Michelle Nichols | Michelle.Nichols@BNSF.com |

Project Milestones

Tasks, ownership and scheduling for this course are as follows: *These are our agreed-on generic milestones. These may need to be customized depending on your project. This should not be considered the official "project plan." If a step is not relevant to a WBT, enter N/A.*

| Task | Target Date | Actual Completed Date |
|------------------------------------------------------------------------------------------|-------------|-----------------------|
| Kick-off meeting | 10/10/2015 | 10/12/2015 |
| Design document approved | 10/15/2015 | |
| Draft of representative sample approved (Module 1, Blue Signal, will be developed first) | 10/16/2015 | |
| Editorial review | 10/30/2015 | |
| Draft of all materials approved | 11/15/2015 | |
| Train-the-Trainer (if applicable) | n/a | |
| Functional test or Pilot date | 12/1/2015 | |
| Content in production/implementation | 12/15/2015 | |

Rules Summary

| Lesson # | Rules Referenced in this Course |
|-------------------------------------------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Lesson #1: Welcome to Blue Signal Protection (301) | Reference CFR 217.9 (b), 218 of Operations Testing Program |
| Lesson #2: Operations Testing | Number 301-1: S-24.2.3; S-24.2.5; S-24.2.6 Number 301-2: S-24.2.4 Number 301-3: S-24.2.7; S-24.2.8; S-24.2.9; S-24.2.10 Number 301-4: S-24.2.11; S-24.2.12 |

Approvals

Please enter your name and select a date below to indicate acceptance of this document:

| Stakeholders | Name | Date of Acceptance |
|-----------------|------------------|--------------------|
| Content Owner | Joe Mahoney | |
| Project Manager | Michelle Nichols | |