# FEDERAL RAILROAD ADMINISTRATION

# OFFICE OF SAFETY



FY 2009 Technical Training Course Catalog and Calendar

SAFETY IMPROVEMENT &

DEVELOPMENT TEAM

# **Foreword**

The SIDT course catalog is provided as a service to our internal Office of Safety customers, including participating state inspectors and program managers. The catalog includes course descriptions for 21 different courses SIDT will deliver this year. The catalog is preceded by the FY 2009 Training Calendar as of 10/21/2008, which consists of 46 classes in the 21 courses. Calendar updates will be provided if changes occur. We also offer a correspondence course for Federal Inspector Trainees hired at the GS-05 and GS-07 grade level.

- 1. Technical training is based on organizational needs, and therefore considered mandatory. SIDT performs various types of analyses to assess the organizational needs, including feedback from Headquarters, the regions, and the inspectors.
- 2. The training is for internal Office of Safety customers. Although we may invite people from the NTSB, Transport Canada, etc., to attend on occasion, we do not provide training for external customers from other governmental or civilian organizations. We simply do not have the resources to do so.
- 3. Normally, we do not honor requests to attend particular courses or classes. We use a specific methodology to select Federal and State Inspectors and Specialists in a resource responsible and equitable manner. The SIDT Management Analyst manages the selection process.
- 4. Beginning this fiscal year, the GovTrip program will be used to arrange travel funded by SIDT for participating state inspectors and managers. State employees will not have access to the GovTrip program; their travel arrangements will be prepared by FRA HQ employees and approved by either the SIDT Program Analyst or SIDT Coordinator. Details of this process will be provided to each participating state inspector and manager sometime in November 2009.
- 5. SIDT does not fund training travel for Federal employees. FRA Headquarters adds funding to the regional and HQ budgets to accommodate this travel.
- 6. Staff Directors, Regional Administrators, Deputy Regional Administrators, and State Program Managers are invited to attend in-house classes if they wish. SIDT will not fund travel for State Program Managers who wish to attend training courses unless they also actively perform inspections. They may attend courses, but must travel at state expense.
- 7. When we schedule contractor training, we cannot take the groups mentioned above into account. If someone from this group wishes to attend a contractor course, they must receive prior approval from the SIDT Coordinator. We cannot use slots allotted for Inspectors and Specialists to accommodate people from this group.
- 8. We anticipate arranging a two-year contract for new technology locomotive training for MP&E Inspectors and Specialists (Course MP&E 210). Provided this contract is successful, about 60 employees from this discipline will attend that training this FY, and the remainder will attend a class in Course MP&E 211. We anticipate carrying this over for FY 2010, when the group that attended MP&E 210 will attend MP&E 211, and vice-versa.
- 9. We also anticipate arranging a follow-up training event for those previously trained to conduct Forensic Passenger Accident Investigations. Details will be provided later in this fiscal year, but the format will be discussion of lessons learned and best practices.

- 10. Current policy is to schedule Chief Inspectors only for courses that relate to their previous discipline of expertise, general courses, or for courses developed specifically for them.
- 11. GS-05 and GS-07 level inspector trainees do **not** attend formal training classes developed for journey level inspectors. We have a specific program of training for trainees at these grade levels. The program consists primarily of self-study and one-on-one tutelage with experienced inspectors. The same standard generally applies to participating state inspector trainees. GS-09 level trainees and state equivalent inspectors are scheduled for journey level classroom and on-the-job training.

# FY09 SIDT Technical Training Calendar Revised Date: 10/29/2008

0901         Track 205         Track Fundamentals - Phase Two         02/09/09         02/13/09         Nash           0902         GN 208         FRA Report Writing Principles for Federal Employees         02/23/09         02/27/09         Orland           0903         MP&E 211         MP&E Recurrency 2009         02/23/09         02/27/09         San A	
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0903 MP&F 211 MP&F Recurrency 2009 02/23/00 02/27/00 San /	ndo FL
1 0703 [MI &E ZII [MI &E RECUITORY 2007   02/25/07   02/25/07   02/25/07   04/25/07	Antonio TX
0904 OP 217 OP Recurrency 2009 02/23/09 02/27/09 San A	Antonio TX
0905 GN 202 Investigative Skills Fundamentals 03/02/09 03/06/09 Nash	ville TN
0906 MP&E 211 MP&E Recurrency 2009 03/09/09 03/13/09 Redo	
0907 Track 210 Rail Integrity Fundamentals 03/09/09 03/13/09 Las V	
0908 S&TC 216 S&TC Recurrency 2009 03/23/09 03/27/09 San A	
0909 Track 210 Rail Integrity Fundamentals 03/23/09 03/27/09 Colum	mbus OH
0910 GN 304a Radar Speed Measurement Instructor Training 03/30/09 04/03/09 Louis	sville KY
0911 OP 217 OP Recurrency 2009 04/06/09 04/10/09 Nash	
0912 Track 210 Rail Integrity Fundamentals 04/06/09 04/10/09 Redo	
0913 MP&E 211 MP&E Recurrency 2009 04/13/09 04/17/09 Nash	
0914 S&TC 216 S&TC Recurrency 2009 04/20/09 04/24/09 Redo	
0915 Track 210 Rail Integrity Fundamentals 04/20/09 04/25/09 Nash	
0916 HM 215 HM Recurrency 2009 04/27/09 05/01/09 Las V	
0917 OP 217 OP Recurrency 2009 04/27/09 05/01/09 Las V	
0918 S&TC 216 S&TC Recurrency 2009 05/04/09 05/08/09 Des N	
0919 Track 210 Rail Integrity Fundamentals 05/04/09 05/08/09 San A	Antonio TX
0920 MP&E 211 MP&E New Technology Locomotive 05/11/09 05/15/09 TBD	
	Antonio TX
0922 HM 215 HM Recurrency 2009 05/18/09 05/22/09 Nash	ville TN
0923 OP 217 OP Recurrency 2009 05/18/09 05/22/09 Louis	sville KY
0924 MP&E 201 MP&E Fundamentals - Phase One 05/31/09 06/05/09 San A	Antonio TX
0925 GN 202 Investigative Skills Fundamentals 06/08/09 06/12/09 Louis	sville KY
0926 GN 208 FRA Report Writing Principles for Federal Employees 06/08/09 06/12/09 San A	Antonio TX
0927 HM 201 HM Fundamentals - Phase One 06/08/09 06/12/09 San A	Antonio TX
0928 OP 217 OP Recurrency 2009 06/08/09 06/12/09 Redo	ndo Beach CA
0929 Track 210 Rail Integrity Fundamentals 06/08/09 06/12/09 Des M	Moines IA
0930 HM 215 HM Recurrency 2009 06/15/09 06/19/09 Des M	Moines IA
0931 MP&E 211 MP&E New Technology Locomotive 06/15/09 06/19/09 TBD	
0932 HM 208 HM Fundamentals - Phase Two 06/22/09 06/26/09 San A	Antonio TX
0933 OP 217 OP Recurrency 2009 06/22/09 06/26/09 Colum	mbus OH
0934 S&TC 216 S&TC Recurrency 2009 06/22/09 06/26/09 Colum	mbus OH
0935 GN 207 Accident Investigation Fundamentals 07/12/09 07/17/09 Colum	mbus OH
0936         Track 201         Track Fundamentals - Phase One         07/12/09         07/17/09         Louis	sville KY
0937 MP&E 211 MP&E New Technology Locomotive 07/13/09 07/17/09 TBD	
0938 S&TC 216 S&TC Recurrency 2009 07/13/09 07/17/09 Nash	ville TN
0939 OP 201A OP Fundamentals - Phase One 07/19/09 07/24/09 Des M	Moines IA
0940 HM 215 HM Recurrency 2009 07/20/09 07/24/09 Colum	mbus OH
0941 OP 217 OP Recurrency 2009 07/27/09 07/31/09 Des M	Moines IA
0942 MP&E 205 MP&E Fundamentals - Phase Two 08/03/09 08/07/09 San A	Antonio TX
0943 Track 210 Rail Integrity Fundamentals 08/10/09 08/14/09 Louis	sville KY
0944 HM 215 HM Recurrency 2009 08/10/09 08/14/09 San A	Antonio TX
0945 MP&E 211 MP&E Recurrency 2009 08/24/09 08/28/09 Colum	
0946 OP 207A OP Fundamentals - Phase Two 08/31/09 09/04/09 Des M	Moines IA
GN 211B Forensic Passenger Accident Investigation	

Course\_IDHoursPrerequisiteSourceGN 101N/ANoneContractor

#### Course Name

The Railroad - What It Is, What It Does

## **Description and Objectives**

Description: This is a correspondence course from The Railway Educational Bureau (REB) that will be completed by all grade level GS-5 or GS-7 FRA inspector trainees. This course explores the railroad industry from A to Z, with illustrations and diagrams helping explain the evolution of the railroad industry, changes in signal and communication technology, maintenance, and design engineering. The ever-changing face of rail passenger service is described, as is intermodal traffic. The course book also examines the administration, law, accounting, and deregulation of the railroad, making it a valuable single volume of railroad information.

The objective of this course is to provide a basic understanding of what a railroad is. The course includes the following eight modules:

- 1. Railroad Technology, The Route System.
- 2. The Track: Alignment and Structure.
- 3. The Locomotive.
- 4. The Railroad Car and the Train.
- 5. Signals and Communication, Railroad Operation.
- 6. Car Types, Terminal Operations, Classification and Blocking.
- 7. Shipping, Unit-Trains, Intermodal Traffic, Rail Passenger Services.
- 8. Railroad Organization.

Regional managers should notify Barbara Hall, SIDT Management Analyst, via e-mail when a person is employed as a GS-05 or GS-07 level inspector trainee. Ms. Hall will arrange to send the course to the appropriate region for assignment. The Railway Educational Bureau will grade the lessons and send the results to the FRA Supervisor for review.

Course\_IDHoursPrerequisiteSourceGN 20224NoneContractor and FRA

## Course Name

Investigative Skills Fundamentals

# **Description and Objectives**

Description: This course is for those who are expected to perform an FRA investigation. The course focuses on developing interviewing, photography, and note taking skills; and includes interactive lectures and a field trip. Practical exercises are built around a grade crossing accident scenario. Each class will be monitored by a FRA training specialist to ensure field trip safety and to answer questions about FRA's witness interviewing policies.

- 1. Use their FRA provided cameras to photograph an accident site.
- 2. Prepare notes including a photo log.
- 3. Conduct an interview.

Course\_IDHoursPrerequisiteSourceGN 20730GN 202FRA

#### Course Name

Accident Investigation Fundamentals

# Description and Objectives

Description: This course is intended for anyone who may be assigned to perform an FRA accident investigation. There are 10 learning modules covering FRA's statutory and regulatory authority to conduct investigations, communication guidelines, fatigue and crew resource management techniques for listing and prioritizing information gathering objectives, note taking and interviewing skills reinforcement, alcohol & drug involvement, locomotive event recorders, hazardous materials involvement, and FRA accident reporting requirements.

The course consists of a series of short interactive lectures using slide presentations and participant guides, followed by practical exercises for each of the modules. A building block concept is used for the practical exercises so that the learning lessons are reinforced throughout the course. There is a 25 question pre and post test designed to evaluate participant knowledge levels at the beginning and ending of the course.

- 1. Recognize their statutory and regulatory authority to investigate accidents.
- 2. Analyze accident reports submitted by railroads to FRA.
- 3. Explain circumstances where fatigue may be a causal factor.
- 4. Understand the Threat and Error Management Model.
- 5. Use recognized investigative techniques to list and prioritize objectives.
- 6. Identify note taking and interview requirements, policies, and techniques.
- 7. Recognize when locomotive event recorder data, alcohol and drug involvement, and hazardous materials involvement must be included in reports.
- 8. Prepare an FRA F6180.39 Factual Railroad Accident Investigation Report.

Course\_ID Hours Prerequisite Source

GN 208 22 None Contractor and FRA

## Course Name

FRA Report Writing Principles for Federal Employees

## Description and Objectives

Description: This three-day course is intended for Federal Office of Safety Field Employees who are required to write and edit reports. The first day is a grammar refresher workshop delivered by a contractor with a minimum of a Master's Degree in English and adult teaching credentials. The second day includes modules on editing, general writing principles, and planning and organizing FRA reports. Students practice writing and editing sections of accident and complaint investigative reports on the third and final day.

- 1. Use grammar rules more effectively.
- 2. Write sentences and paragraphs following the principles of clear and concise government writing.
- 3. Apply editing techniques to their own writing.
- 4. Plan and organize FRA reports.
- 5. Write reports that will be clear to the reader at the first reading.
- 6. Revise and edit reports using automated word processing program features.

Course\_ID Hours Prerequisite Source

GN 304A 22 None Contractor and FRA

## Course Name

Radar Speed Measurement Instructor Training

# Description and Objectives

Description: This course is intended to teach participants to become proficient in the use of Radar and to develop their instructional skills sufficiently to present Radar training to other inspectors in their regions. The training will be provided to two Federal Inspectors or Regional Specialists from each region.

- 1. Explain NHTSA Radar policy.
- 2. Explain FRA Radar Protocols.
- 3. Perform visual speed estimates.
- 4. Explain factors affecting Radar.
- 5. Describe technical aspects of Radar.
- 6. Use lesson plans.
- 7. Make classroom presentations.

Course\_IDHoursPrerequisiteSourceHM 20124NoneFRA

#### Course Name

Hazardous Materials Fundamentals - Phase One

## Description and Objectives

Description: This course provides recently hired journey level Federal and State Hazardous Materials Inspectors, and GS-9 level HM Trainees with the knowledge, skills and abilities necessary to perform inspections at their grade level. The course is an overview of the following: Hazmat Compliance Manual, FRA Field Orientation and Training Guide, AAR Specification for Tank Cars - M1002, and 49 CFR Parts 171, 172, 173, 174, 178, 179 and 180.

This course consists of a series of short interactive lectures using a slide presentation and participant guides, followed by practical team exercises for each learning module. Practice exercises will consist of situational scenarios and group discussions. There is a multiple choice pre and post test designed to evaluate participant knowledge levels at the beginning and end of the course.

- 1. Apply appropriate FRA Hazmat regulations when performing site inspections.
- 2. Recognize deviations from the regulations.
- 3. Prepare an F6180.96 inspection report based on a given scenario.
- 4. Identify railroad and/or shipper responsibility for achieving compliance.
- 5. Understand inspector discretion when considering civil penalty recommendations.
- 6. Recall appropriate reference source documents for guidance.
- 7. Calculate the filling limits/density requirements for loading tank cars.

Course\_IDHoursPrerequisiteSourceHM 20824NoneFRA

## Course Name

Hazardous Materials Fundamentals - Phase Two

# Description and Objectives

Description: This course provides recently hired journey level Federal and State Hazardous Materials Inspectors, and GS-9 level HM Trainees with the knowledge, skills and abilities necessary to perform inspections at their grade level. The course provides an overview of the FRA requirements for using civil penalties as a compliance tool, gathering applicable documents to support the claim, and the steps necessary to properly prepare the report.

The course consists of a series of short interactive lectures, using a slide presentation and participant guides, followed by practical exercises involving realistic scenarios for each learning module. A building block concept is used and incorporated into practical exercises of each module, so that learning lessons are reinforced throughout the course. There is a multiple choice pre and post test designed to evaluate participant knowledge levels at the beginning and ending of the course.

Objectives: At the conclusion of the training, participants will be able to:

- 1. List the enforcement actions available to effectively handle non-compliant hazmat issues.
- 2. Gather the documents needed to support the violation report.
- 3. Determine if individual civil penalty actions are appropriate.
- 4. Prepare a F6180.110 violation report.

Course\_IDHoursPrerequisiteSourceHM 21524NoneFRA

#### Course Name

HM Recurrency 2009

## Description and Objectives

Description: This course is intended for all Federal and State hazardous materials inspectors and specialists. It defines the criteria for using the International Maritime Dangerous Goods (IMDG Code). In addition, there will be eight hours of contracted instruction on "Street Smart Chemistry"- a fundamental, common-sense approach to dealing with a variety of chemicals focused on their potential adverse reactions to the environment and their container. This course will include a module on preferred traits and characteristics of a professional inspector.

The course consists of a series of short interactive lectures using a slide presentation and participant guides, followed by practical exercises for each of the modules. A building block concept is used for the course modules and the practical exercises so that the information is presented in sequential order. There is a 25 question, multiple choice, pre and post test that is designed to evaluate participant knowledge levels at the beginning and end of the course.

- 1. Apply the two volumes and supplement of the IMDG Code.
- 2. Understand the relationship between the U.S. Federal regulations and the IMDG Code.
- 3. Determine the proper shipping description and packaging requirements for international transportation.
- 4. Apply the IMDG Code in field inspections and investigations.
- 5. Identify probable cause involving adverse chemical reactions during transportation.
- 6. Understand the chemistry of hazardous materials.
- 7. Correlate the traits of a professional inspector with your own personal attributes.

Course\_IDHoursPrerequisiteSourceMP&E 20132NoneFRA

## Course Name

MP&E Fundamentals - Phase One

# **Description and Objectives**

Description: This course provides recently hired MP&E Inspectors with the knowledge, skills and abilities necessary to perform inspections at their grade level. The course includes instruction on the MP&E Compliance Manual, Code of Federal Regulations (49 CFR), and the Single Car Air Brake Test (SCT) Manual. New inspectors learn the specific methodologies related to Locomotives (229), Safety Appliances, (231) Power Brakes and Drawbar Heights (232), Freight Car Safety Standards (215), Locomotive and Car Glazing Standards (223), Blue Signals (218), Rear of Train Markers (221).

- 1. Apply appropriate MP&E regulations when performing site inspections.
- 2. Recognize deviations from the regulations.
- 3. Prepare an F6180.96 inspection report based on a given scenario.
- 4. Understand an individual employee's compliance responsibilities.
- 5. Assess whether railroads use proper sequential steps when performing single car tests.

Course\_IDHoursPrerequisiteSourceMP&E 20524NoneFRA

## Course Name

MP&E Fundamentals - Phase Two

# **Description and Objectives**

Description: This course provides recently hired MP&E Inspectors with the knowledge, skills and abilities necessary to perform inspections at their grade level. There is an overview of various MP&E activities in connection with inspection reports, violation reports, special notice for repair reports, activity codes, defect/non-defect codes, and the MP&E Compliance Manual. The course consists of a series of short interactive lectures using a slide presentation, participant guides, and job aids, followed by practical team exercises for each learning module.

- 1. Prepare a MP&E Violation Report (F6180.109), based on a given scenario.
- 2. Prepare a Special Notice for Repair Report (F6180.8), based on a given scenario.
- 3. Recall appropriate MP&E activity codes.
- 4. Use appropriate MP&E defect/non-defect codes.
- 5. Use the MP&E Compliance Manual.

Course\_ID Hours Prerequisite Source

MP&E 210 24 None Contractor & FRA

## Course Name

MP&E New Technology Locomotive

## Description and Objectives

Description: This course is intended for all MP&E Specialists, Chiefs, Federal and State journey level inspectors who are actively engaged in freight locomotive inspections. The course is an overview of new generation locomotives, their components and how new systems function.

The course consists of a series of short interactive lectures, participant guides, job aids, and hands-on demonstrations followed by practical exercises for each learning module.

- 1. Understand the locomotive computer systems and new enhancements.
- 2. Identify new components associated with diesel engines.
- 3. Recognize the two locomotive truck types and associated improvements.
- 4. Identify five different air brake systems on EMD Locomotives.
- 5. Recall FRA/AAR locomotive crashworthiness requirements.

Course\_IDHoursPrerequisiteSourceMP&E 21124NoneFRA

#### Course Name

MP&E Recurrency 2009

## Description and Objectives

Description: This course is intended for all MP&E Specialists, Chiefs, Federal and State journey level inspectors. The course will provide participants with the in-depth knowledge, skills, and abilities necessary to (1) perform specific inspections of freight cars and locomotives, in order to determine compliance with the new Federal regulation 49 CFR, Part 232 Electronically Controlled Pneumatic Brake System, (2) successfully navigate through the new Federal regulation 49 CFR Parts 217 and 218 Railroad Operating Rules: Program of Operational Test and Inspections; Handling Equipment, Switches and Fix Derails, and (3) perform all inspections and/or observations associated with Tier I Passenger Equipment. This course will include a module on preferred traits and characteristics of a professional inspector.

The course consists of a series of interactive lectures using PowerPoint presentations, participant guides, job aids, and practical exercises covering individual modules. There is a multiple choice, pre and a post test, designed to evaluate participant knowledge levels at the beginning and end of the course.

- 1. Apply FRA Passenger Equipment Safety Standards when inspecting passenger equipment.
- 2. Cite specific guidelines related to passenger equipment found within the MP&E Compliance manual.
- 3. Summarize Part 238 Class I, Class IA and Class II passenger equipment brake test requirements.
- 4. Discuss the new requirements of 49 CFR, Parts 217 and 218 as they pertain to the MP&E discipline.
- 5. Be aware of the history, purpose and scope of 49 CFR, Part 232 Electronically Controlled Pneumatic Brake System.
- 6. Understand 49 CFR, Part 232 Electronically Controlled Pneumatic Brake System.
- 7. Correlate the traits of a professional inspector with your own personal attributes.

Course\_IDHoursPrerequisiteSourceOP 201A32NoneFRA

#### Course Name

OP Fundamentals - Phase One

## Description and Objectives

Description: This course is intended for recently hired Operating Practices Inspectors. The course introduces the participants to 49 CFR parts 217, 218, 220, 221, 228, 232, and 240. The course will include a review of the OP Compliance Manual with emphasis on the Focused Inspection approach and the Switching Operations Fatality Analysis initiative. There is a pre and post multiple choice test that is designed to evaluate each participant's knowledge levels at the beginning and end of the course. The course mixes classroom lectures with practical exercises to achieve an application level of learning of the topics covered.

- 1. Select the appropriate methods for addressing safety issues identified during inspections.
- 2. Understand the philosophy of operations testing.
- 3. Prepare to conduct onboard train inspections and yard inspections.
- 4. Apply blue signal protection and utility employee provisions of Part 218 within a railroad yard.
- 5. Apply 49 CFR Part 220 and associated railroad operating rules.
- 6. Apply 49 CFR Part 221.
- 7. Understand the components of SOFA and Railroad Operating Rules.
- 8. Recognize OP involvement in securing railroad equipment.
- 9. Explain the requirements of the Hours of Service Law.
- 10. Recognize the procedures for field enforcement of Part 240.

Course\_IDHoursPrerequisiteSourceOP 207A24NoneFRA

#### Course Name

OP Fundamentals - Phase Two

## Description and Objectives

Description: This course is intended for recently hired Operating Practices Inspectors. There are seven learning modules covering waiver petitions, enforcement actions against railroads, inspection reports, complaint investigation, individual liability and violation reports. The course consists of a series of lectures using PowerPoint presentations and participant guides, followed by practical exercises for each of the modules. The participants, using a given practical exercise, write a complaint investigation memorandum, inspection report, violation report and a regional warning letter. A building block concept is used for the practical exercises so that the learning lessons are reinforced throughout the course. There is a pre and post test designed to evaluate participant knowledge levels at the beginning and end of the course.

- 1. List the procedures for issuance of a permanent or temporary waiver petition.
- 2. Prepare an inspection report (6180.96) based on a given practical exercise.
- 3. Use cameras and witness statements to strengthen violations and reports.
- 3. Perform complaint investigations in accordance with FRA policy.
- 4. Prepare a complaint investigation memorandum based on a given scenario.
- 5. Identify the six types of enforcement tools available against railroads, and the seven factors that should be analyzed in determining whether or not to recommend civil penalties.
- 6. Prepare violation reports.
- 7. Identify the types of individual liability tools available for use by FRA.
- 8. Write a Regional Warning Letter for Individual Liability based on a given scenario.

Course\_IDHoursPrerequisiteSourceOP 21724NoneFRA

## Course Name

OP Recurrency 2009

## Description and Objectives

Description: This course is intended for all FRA OP Inspectors, State OP Inspectors, OP Specialists, and Chief Inspectors with an OP background. It will provide an overview of FRA's enforcement of the Hours of Service Law (HOSL) and the consequential complaints and violations. It will also cover current events that will include electronically controlled train air brakes (ECP), Close Call Reporting and any updates on new regulations. This course will include a module on preferred traits and characteristics of a professional inspector.

The course consists of a series of short interactive lectures using a slide presentation and participant guides, all of which will include practical exercises. A building block concept is used for the practical exercises so that the learning lessons are reinforced throughout the course. There is a 15 question pre and post test designed to evaluate participant knowledge levels at the beginning and end of the course in regards to enforcement of the Hours of Service Law.

Objectives: After successfully completing the course, each participant will be able to:

- 1. Identify the common mistakes made when interpreting the Hours of Service Law.
- 2. Use a railroad's electronic HOSL reporting system.
- 3. Perform HOSL complaint investigations.
- 4. Be aware how current events will affect OP Inspectors efforts to obtain compliance through influence.
- 5. Correlate the traits of a professional inspector with your own personal attributes.

Course\_IDHoursPrerequisiteSourceS&TC 21624NonwFRA

## Course Name

S&TC Recurrency 2009

## Description and Objectives

Description: This course is intended for all Federal and State S&TC inspectors, and State Highway-Rail Grade Crossing inspectors who may be assigned to perform Part 234 and 236 inspections, investigations and other duties associated with railroad and highway grade crossing signal systems. This course will include a module on preferred traits and characteristics of a professional inspector.

The course consists of a series of short interactive lectures using PowerPoint presentations and participant guides, followed by practical exercises. The participants will understand the inspection of: signal and train control systems, power-operated switches, hand-operated switches, and highway grade crossing warning devices. A building block concept is used for the practical exercises and learning lessons are reinforced throughout the course. There are multiple choice, pre and post tests designed to evaluate participant knowledge levels at the beginning and end of the course.

- 1. Understand the inspection of highway grade crossing warning devices subject to Part 234.
- 2. Apply FRA investigative procedures as specified in the revised S&TC Technical Manual.
- 3. Understand the new technical bulletin regarding S&TC activity codes.
- 4. Understand the new technical bulletin regarding source codes.
- 5. Understand the new technical bulletin regarding HGCS approach warning times.
- 6. Understand the CFR Part 218 Subpart F application to S&TC.
- 7. Correlate the traits of a professional inspector with your own personal attributes.

Course_ID	<b>Hours</b>	Prerequisite	Source
Track 201	32	None	FRA

#### Course Name

Track Fundamentals - Phase One

# **Description and Objectives**

Description: This course introduces recently hired Track Inspectors to 49 CFR Part 213 Subparts A-F Track Safety Standards, general railroad industry safety requirements, and personal safety requirements, when inspectors are on or about the railroads' tracks or property. The course combines classroom learning examples with practical field exercises to gain hands-on experience about the rail industry.

- 1. Use personal safety equipment when conducting a track inspection.
- 2. Relate commonly used track terms to actual components in the track structure.
- 3. Interpret a typical railroad timetable and track chart/profile.
- 4. Use the inspection tools that are necessary to conduct a track inspection.
- 5. Interpret and analyze data generated by the Automated Track Inspection Program.
- 6. Clarify the minimum requirements for each subpart of 49 CFR Part 213.
- 7. Apply the Track Safety Standards and the Track Compliance Manual guidelines during inspections.

Course\_IDHoursPrerequisiteSourceTrack 20524NoneFRA

#### Course Name

Track Fundamentals - Phase Two

## Description and Objectives

Description: This course is intended for recently hired Track Inspectors. There are six learning modules covering waiver petitions, enforcement actions against railroads, complaint investigations, inspection reports, individual liability, and violation reports.

The course consists of a series of short interactive lectures using PowerPoint presentations and participant guides, followed by practical team exercises. A building block concept is used for the practical exercises so that the learning lessons are reinforced throughout the course. There is a pre and post test designed to evaluate participant knowledge levels at the beginning and ending of the course.

- 1. List the procedures for issuance of a permanent or temporary waiver petition.
- 2. List the enforcement actions available against railroads.
- 3. Write a narrative complaint investigation report.
- 4. Complete a track inspection report.
- 5. Write a violation report using Form FRA F6180.111 or FRA F6180.119.
- 6. Determine if individual civil penalty actions are advisable for willful conduct.
- 7. Write a regional individual liability warning letter.

Course\_IDHoursPrerequisiteSourceTrack 21024NoneFRA

#### Course Name

Rail Integrity Fundamentals

## Description and Objectives

Description: This course is intended for all Federal and State Track Inspectors and Specialists. The course introduces the participants to rail flaw detection identification and the ultrasonic technology concepts that support identification of rail defects. A review of the defect table in 213.113 Defective rails, in the Track Compliance Manual, will allow the participants to analyze the current rule for inconsistences in the remedial action table. The course consists of a series of short interactive lectures using a slide presentation and participant guide, followed by practical individual exercises addressing 49 CFR Part 213.113 Defective rails. This course will include a module on preferred traits and characteristics of a professional inspector.

- 1. Accept the basic principles and theories of ultrasonics and how they are applied in the rail flaw detection process.
- 2. Accept information on the equipment, type of technology currently utilized, and emerging technologies and their potential capabilities.
- 3. Be aware of the history of the rail manufacturing process and rail flaw development.
- 4. Recognize how test data is used to properly determine a rail failure location within the test data.
- 5. Analyze the current regulatory language for inconsistences concerning rail defect remedial actions.
- 6. Correlate the traits of a professional inspector with your own personal attributes.