

**Questions for Phone Interviews with Division Engineers (8)**

This interview concerns the track inspection process. The Federal Railroad Administration will use this information in preparing a Report to Congress as required by the Rail Safety Improvement Act of 2008. Your answers and comments will inform possible future FRA policy and regulatory actions and improve overall railroad operational safety.

Your participation in this study is completely voluntary and you may choose to end your participation at any time. This data collection is authorized by law. Your identity will be kept private and known only to myself (the interviewer) and the study manager.

**Public reporting burden for this information collection is less than one (1) hour, including time for explaining the interview process, searching existing data sources, gathering and maintaining the data needed, and completing and reviewing this collection of information. I am required by law to give you the OMB control number which is OMB No. 2130-XXXX and the expiration date is YYYY.**

1. How long have you been a division engineer?
2. How many years of experience do you have doing track inspection or supervision?
3. How large is your division (track miles)? Number of territories (subdivisions?) in the division?
4. On your railroad, do you use the title track supervisor or roadmaster? (Depending upon answer, word following questions with appropriate title.)
5. How many track supervisors/roadmasters report to you?
6. What characteristics of your division create challenges for the track inspection process?
7. What territory characteristics trigger special inspections?  
 \_\_\_\_extreme heat    \_\_\_\_extreme cold    \_\_\_\_desert terrain    \_\_\_\_mountain terrain  
 \_\_\_\_other (please specify)\_\_\_\_\_
8. What criteria do you use to establish inspection territories?
9. What is the average size of an inspector’s territory in your division? (mainline inspectors – track miles, yard inspectors – number of sites)
10. How do you determine how many inspectors you need on a territory?
11. Do you feel that you have an adequate number of inspectors on your division? How did you make that determination?
12. Do you conduct a morning call with all of your track supervisors/roadmasters? If so, what topics do you typically cover? If you do not have a morning call, how do your track supervisors/roadmasters keep you informed about track inspection and maintenance issues?
13. What types of the following training does your railroad provide for track inspection personnel?

	Never	Every other year	Every year	More frequently
on-the-job training	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

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FRA track standards training	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
FRA safety standards training	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
other track inspection related training (please specify)	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

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What type of additional track inspection training, if any, do you think they should have? How frequently?

14. How frequently do your inspectors work overtime to complete routine inspections? What causes the need for overtime? (e.g., waiting for track time, weather, assignment to non-inspection duties, short-staffed)
15. What types of automated inspections occur on your division? How frequently? In what way are they useful?
  - a. Ultrasonic rail flaw detection
  - b. Gage restraint measurements (GRMS or PTLF)
  - c. Track geometry measurements
  - d. Vehicle track interaction (impact loads and vehicle dynamics)
  - e. Anything else?
16. With regard to the table that you completed prior to this conversation, could you suggest a means to improve detection of those conditions that you indicated as “not readily detectable”?
17. (a) Does your railroad inspect more frequently than FRA regulations require? If so, could you provide an example? What was the reason you or your railroad chose to inspect more frequently than FRA regulations require? (b) Does your railroad inspect to FRA minimum safety standards or are your standards more stringent? If so, could you provide an example? What was the reason you or your railroad adopted more stringent standards than FRA regulations prescribe?
18. Are there any other inspections that you would find helpful?
19. What changes, if any, would you recommend in current FRA track inspection requirements?
20. Are there any other aspects of the inspection process that you would like to comment on for FRA consideration in preparing its Report to Congress?

Please complete the following table and send it to your interviewer prior to your phone conversation.

Track Condition	How do your inspectors commonly detect each condition? (Check all that apply.)				
	Visual		Results of Automated Inspection	Not readily detectable	Not applicable on my division
	on foot	hi-rail			
<b>Geometry</b>					
Gage dimension less than/greater than allowable	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Alignment deviation exceeds allowable	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Maximum crosslevel exceeds allowable	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Runoff at end of raise exceeds allowable	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Deviation from uniform profile on either rail exceeds allowable	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Difference in crosslevel (warp) exceeds allowable	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Reverse elevation on curve exceeds allowable	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<b>Ballast</b>					
Insufficient ballast	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Fouled ballast	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<b>Ties</b>					
Ineffective/defective ties	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Rail seat abrasion	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Track constructed without crossties does not effectively support track structure	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<b>Rail/joints</b>					
Broken rail	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Worn rail	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Rail-end mismatch	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Cracked or broken joint bar	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Insufficient number of joint bolts	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Loose/worn joint bars	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Torch-cut or burned bolt hole in rail	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<b>Switches</b>					
Stock rail/ switch point not seated or functioning as intended	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

<b>Track Condition</b>	<b>How do your inspectors commonly detect each condition? (Check all that apply.)</b>				
	<b>Visual</b>		<b>Results of Automated Inspection</b>	<b>Not readily detectable</b>	<b>Not applicable on my division</b>
	<b>on foot</b>	<b>hi-rail</b>			
Loose, worn, or missing switch components	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<b>Fasteners/anchors</b>					
Insufficient/ineffective fasteners	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Insufficient anchors to restrain rail movement at turnouts or CWR	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<b>Frogs</b>					
Insufficient flangeway depth/width	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Worn or defective frog/frog components	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<b>Misc.</b>					
Heat kinks	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Right-of-way obstructions	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Object between base of rail and the bearing surface of the tie plate causing concentrated load	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Insufficient/defective tie plates	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Missing or damaged signage	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Track washouts	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Poor drainage/pumping ties	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Excessive vegetation	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Defective derail conditions(s)	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>