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SHORT LINE SAFETY INSTITUTE PILOT SAFETY CULTURE ASSESSMENT PROJECT: RECRUITMENT AND SELECTION OF SITES AND ASSESSORS

SUMMARY

The American Short Line and Regional Railroad Association (ASLRRA), with the support of the Federal Railroad Administration (FRA) Office of Research, Development and Technology (RD&T), is establishing a Short Line Safety Institute (Institute). The first step in creating the Institute is a Pilot Safety Culture Assessment Project (Pilot Project), which is focused on short line and regional railroads that transport crude oil.

This report provides an update on the Pilot Project and the Institute. Specifically, this report describes how the railroads were selected for the Pilot Project and discusses recruiting, selecting, and training Assessors.

BACKGROUND

The Institute's goals are: (1) conduct safety culture assessments, which are voluntary and non-punitive, with the goal of improving the safety culture on short line and regional railroads; (2) serve as a training and education resource for short line and regional railroads; and (3) serve as a research center that compiles and disseminates information on safety culture, how to improve it, and related issues.

In partnership with FRA RD&T, the ASLRRA implemented the Pilot Project. Then a Project Team, including representatives from the ASLRRA, FRA RD&T, the University of Connecticut (UCONN), and Volpe National Transportation Systems Center (Volpe), was

assembled to support the development of the Institute. UCONN is developing, testing and validating safety culture assessment protocols and procedures, while Volpe is providing formative and summative feedback on the Institute's development and implementation.

To assess safety culture, Institute Assessors visit railroads, review records and documents related to the railroad's safety procedures, and perform interviews, observations, and surveys with senior leadership, managers, and craft employees. Following the site visit, Assessors analyze the data and present their findings in a written report.

Initial safety culture assessments will be focused on carriers that transport crude oil. Over time, assessments will be extended to carriers transporting other hazardous materials and eventually all short line and regional railroads.

OBJECTIVES

This report describes the development and current status of the Pilot Project. It also discusses the Project Team's processes for selecting railroads to participate in the Pilot Project and for recruiting, selecting, and training Assessors.

PILOT PROJECT

Selection of Railroad Sites for Pilot Project

The ASLRRA team reviewed the 2013 annual member survey and records from Railinc Corporation, which classifies shipments



by type of product, to identify 167 member railroads that transport crude oil. The ASLRRA team characterized each railroad within this population according to the following factors:

- Carload volume,
- Geographic location,
- Infrastructure condition,
- Miles of track,
- Number of employees,
- Operating practices/Type of operation,
- Ownership type (e.g., holding company), and
- Worker hours.

Then the ASLRRA discussed each railroad's readiness for culture change, complexity of operations, and labor representation of employees. Finally, the ASLRRA team selected railroads for potential site visits based on the combined criteria. Twenty-four railroads were identified as having potential sites for the Pilot Project assessments.

Assessor Recruitment

To recruit Assessors, the ASLRRA emailed the Assessor job description to its Safety and Training Committee seeking candidates. Additionally, the ASLRRA announced the search at two ASLRRA regional meetings, and sent targeted emails requesting candidate recommendations from specific individuals with extensive safety compliance or safety culture field experience.

Thirteen applicants submitted a resume and writing sample in response to the recruitment efforts; nine Assessor candidates were invited for in-person interviews.

Assessor Selection

The ASLRRA developed interview questions based on the requisite knowledge, skills, and abilities (KSAs) for the Assessor role that were identified through the job analysis and listed in the job description.¹ Specifically, interview questions assessed the following competencies: interpersonal skills, oral communication, problem solving, and writing ability. The ASLRRA developed a structured interview protocol based on *Structured Interviews: A Practical Guide* by the U.S. Office of Personnel Management.

Interviewers scored candidates' responses using a 5-point scale. For each competency, the rating on the scale contained definitions (e.g., 3 = "Can apply the competency in difficult situations and may require occasional guidance") and example behaviors (e.g., "Can analyze safety policies and procedures to identify barriers to improving the safety culture.").

After the interviews were completed, the ASLRRA team discussed the candidates' interview scores, resumes, and writing samples. Five out of the nine candidates were selected. All of them have extensive experience conducting safety audits, while three have extensive railroading experience.

Their selections were influenced by the team's job analysis, which had concluded that Assessors should work in pairs with complementary skills. Each pair should include one Assessor familiar with and having credibility with short line railroads. The ASLRRA retained one candidate with extensive railroad experience and safety culture training background as a co-Coordinator and alternate



Assessor. This individual works with the previously selected Coordinator to help execute the assessments and train the Assessors.

Assessor Training

The Project Team developed the Assessor training curriculum in three steps. First, the Project Team identified major content areas for training (e.g., Introduction to safety culture, the short line industry, and a description of the Institute and the Pilot Project) and provided key topics for discussion. For example, the Introduction to the Institute and Pilot Project covers the Institute's vision and the Pilot Project's purpose, goals, and timeline.

Second, the Project Team articulated the details of the safety culture assessment process from start to finish, identifying the purpose and goals of each element of the process (i.e., pre-visit document review, survey administration, site visit, and follow-up).

Third, the Project Team developed training materials for the safety culture assessment survey and on-site interviews. Key survey topics included consent, respondents, administration, and report use. For the on-site interviews, the Project Team planned mock interviews with ASLRRRA staff.

Prior to the training, Assessors were asked to briefly define safety culture, and list the key elements they believed to be essential in a strong, successful safety culture. The purpose was to understand the Assessors' knowledge of safety culture prior to the training. Additionally, Assessors completed the safety culture survey so they could understand what the Pilot Project site participants would be asked to do, and to

familiarize themselves with the safety culture constructs (i.e., themes) assessed by the survey.

Core Assessor Training Curricula. The three-day Assessor training occurred in February 2015. Project Team members observed the training and participated at key points. Core curricula for Day One topics included:

- Railroad 101
- Introduction to Safety Culture
- The Institute and Pilot Project
- Pre-Visit: Document Review

Day Two consisted of a full day about the Site Visit Process. Day Three included:

- Site Visit Reporting and Follow-Up
- Introduction to Safety Culture Assessment Survey
- Mock Interviews with senior leaders, managers and craft employees
- Elements of Successful Safety Culture Change

Supplemental Assessor Training. During the Assessor training, an emergent need was identified, specifically additional mock interviews with railroaders and additional training on the interview protocols. Additional Assessor interview training was held approximately two weeks later. Assessors practiced the employee, manager, and senior leader interview protocols on four individuals from railroads who had actual experience at these levels. Assessors received additional interview practice during the ASLRRRA Annual Convention in March 2015.

On-the-Job Assessor Training. To supplement the classroom training and mock interview



practice, all Assessors (i.e., the coordinator and the five Assessors) attended the first Pilot Project safety culture assessment in March 2015 as on-the-job training.

Continuing Education. A two-day continuing education session was held in June 2015 to: (1) refresh the Assessors' understanding of safety culture, (2) review updates to the Pilot Project assessment process and materials, (3) map the safety culture survey constructs to the 10 Core Elements of a Strong Safety Culture identified by the U.S. DOT Safety Council (i.e., the Institute's organizing framework), and (4) practice using an updated version of the final assessment report template.

NEXT STEPS

A future Research Results report will focus on UCONN's development of the web-based safety culture survey for the Institute Pilot Project. The report will describe the literature review, construct identification, item development, and alignment of the survey constructs with the 10 Core Elements. In addition, a needs assessment will be conducted to help identify the education and training needs for short line and regional railroads.

¹ The FRA report, *Development of a Short Line Railroad Safety Institute: Phase I – Job Analysis*, detailed this effort (See RR 14-10, available at <http://www.fra.dot.gov/Elib/Document/3840>).

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CONTACT

Starr Kidda

Human Factors Program Manager
Federal Railroad Administration
Office of Research and Development
1200 New Jersey Avenue, SE
Washington, DC 20590
(202) 493-1300
Starr.Kidda@dot.gov

Michael Coplen

Human Factors Program Manager
Federal Railroad Administration
Office of Research and Development
1200 New Jersey Avenue, SE
Washington, DC 20590
(202) 493-6346
Michael.Coplen@dot.gov

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