

JOINT TRANSPORTATION RESEARCH PROGRAM

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INDOT Technical Training Plan

Introduction

A wide range of job classifications, increasing technical performance expectations, licensing and certification requirements, budget restrictions and frequent department reorganization has made technical training of employees more difficult, but increasingly more important.

This project reviewed the various elements necessary to the development of a technical training plan for INDOT employees. An employee web-tool, identifying training programs conducted by in-house and external providers and degree programs offered by post-secondary institutions is a primary product of the study.

Findings

- There are 151 distinct job titles in six professional/technical disciplines in the Operations, District Operations, Capital Program Management and Engineering Services and Design Support Divisions. Very few position descriptions for these job titles include technical training requirements stated as internal or external training or post-secondary courses needed for employment in the position and successful performance.
- A survey of 722 employees and 49 supervisors in the four divisions didn't show the expected congruence between responding supervisors and employees or among employees as to the identification of employee training needs.
- An analysis of 55 civil engineering-related job titles revealed that a PE license is required for only nine of these, covering 25 working titles, and the PE license requirement may be removed from some positions as descriptions are revised.
- Indiana's PE licensing statute requires 30 professional development hours (PDHs) every two years. Most PEs satisfy the PDH requirement by attendance at the annual Purdue University Road School, webinars,

and the Civil Engineering Professional Development Seminar.

- The Employee Development Office training expenditures report for the first three quarters of FY 2011 listed 19 training programs among the 77 reported on the employee and supervisor surveys in response to the item "in-house technical training attended."
- Thorough internet research identified numerous external technical training program providers and relevant post-secondary degree and certification programs in the six professional/technical disciplines reviewed: 57 federal, state, professional and industry organizations, 22 additional third-party vendors and approximately 82 Indiana public and independent post-secondary degree, course and certification programs are listed in the study's various tables. Applicable information was incorporated in the employee training information web tool.
- INDOT's Educational and Licensing Assistance Program (ELAP) grants reimbursement of the costs of post-secondary coursework up to \$1500 if the course contributes to the employee's performance of his/her INDOT duties and/or will prepare the employee for advancement within INDOT. During the 2½ year period for which requests were reviewed, 107 employees received approval of this assistance. Of the 91 specific requests reviewed during a two-year period, 64 were approved for courses other than in the six professional/technical disciplines of civil engineering, landscape architecture, land surveying, geology, accounting and real estate/appraisal.

Implementation

The INDOT Human Resources and Employee Development offices can use the study findings, its appendices and the deliverable employee web tool (<http://rebar.ecn.purdue.edu/techtraining>) to update and modify the Technical Training Resources, as needed. In doing so, atten-

tion should be given to the following recommendations for implementation:

- Technical training requirements expressed as internal and external training and post-secondary degrees, courses and certifications, should be incorporated in the position descriptions currently being revised;
- Employees and supervisors should be re-surveyed to identify employee training needs and ensure that the technical training requirements are appropriate to the position incumbents and their performance requirements;
- A readily accessible, centralized record management system should be established for PEs to maintain their PDH records;
- The list of approved courses/activities identified by Employee Development for PDHs should be expanded from the seven listed at its website;
- More centralized oversight of technical training is required with policies and procedures pertaining to scheduling, expenditures and trainer/vendor qualifications;
- The tables accompanying the study which identify the 57 organizations and third-party vendors providing technical training and the 82 Indiana post-secondary degree, course and certification programs should be updated, at least annually;
- Information about INDOT's Educational and Licensing Assistance Program (ELAP) should be more broadly circulated to employees.

The primary deliverable is the Employee Development Training Tool (<http://rebar.ecn.purdue.edu/techtraining>). It contains available training resources for INDOT employees and is designed for ED to modify content.

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