In today’s shifting landscape, utilities must place an emphasis on accelerated learning, enabling field workers to become more skilled and more productive—all in a shorter period of time.

By John Benoit and Amy Borgmeyer

A New Approach to Field Operations Training

The gas and pipeline industry is facing an unprecedented level of change, requiring a shift in the way organizations approach the training of field workers. Forty to 50 percent of the industry’s employees are eligible to retire in the next three to five years, and each retirement typically causes a ripple effect of two to three employee moves or new hires to backfill, multiplying the required investment in training. At the same time, growing regulatory pressure is creating more job complexity and training expectations and increasing the risks of noncompliance.

Meanwhile, as the nation’s infrastructure undergoes replacement and expansion, field workers must be equipped to service and maintain an ever-growing list of heterogeneous pieces of equipment. And the continuous evolution of technology is changing how employees do work at unforeseen rates.

All of this means that field workers will require a significant training investment.

The historic apprenticeship model for training new workers created a relatively slow learning curve and required a long time for employees to reach full productivity. Given today’s competitive and changing environment, the ultimate goal of a successful training program must be to transform the way they train. These companies have emphasized:

Alignment: They are aligning training programs to the organization’s strategic priorities and shifting old-school thinking. Instead of looking at training as an expense that needs to be managed, they are viewing it as a strategic competitive advantage.

Process vs. Task: They are training employees to competently do the whole job, instead of focusing only on technical tasks or simply passing tests to meet compliance obligations.

Integration: They are designing, developing and delivering training programs that accelerate learning. This includes increased integration of role-based classroom training, structured on-the-job training and the innovative use of technology to provide employees with the information they need when and where they need it—on the job.

Measurement: They are measuring training effectiveness through business outcomes rather than training transactions (“butts in seats”) or test scores.

A Closer Look: Tiered, Task-Based Training at NiSource

NiSource’s new training programs are organized by groups of job activities so that employees are trained in distinct tiers on specific tasks needed by the business. Each tier of training includes formal training, followed by coaching and assessment in the field. Once an employee completes a tier, he or she is able to perform those tasks independently. The business can then decide whether to move that employee to the next tier of training, depending on workload and specific skill gaps within the organization.

This structured approach to training equips field workers to do their jobs more comprehensively and independently earlier in their careers, because they have been trained and coached on specific job tasks. For example, NiSource trains plant employees on service line work first, enabling them to perform much of the routine work required of them earlier in their careers and saving the more complicated main line work for later in their development.

One important business benefit that NiSource has achieved through this approach is being able to connect training records to the work dispatch process.Schedulers can see tier designations for field employees and are able to assign work based on an employee’s level of competence with specific job tasks. This enables the business to effectively assign work and ensure that employees are operating effectively and safely based on individual capabilities and development tiers.

Accelerated Bootcamp Training

One of North America’s leading transmission and storage companies is building and implementing an accelerated training program to support its massive investments in new assets and technology and to replace the outflow of retiring field employees.

Many of its new hires have little previous exposure to jobs in the natural gas industry. This company uses Pipeliner Bootcamps to accelerate employee development. These weeklong courses provide a broad exposure to the different work that
new hires will perform in the field and reinforce their understanding of performance expectations.

The boot camps include formal training on foundational skills along with hands-on training and practice in the field. To increase retention and knowledge/skills transfer, field training coordinators and supervisors work closely with new pipeliners who come out of the program to set expectations and provide opportunities to practice their skills on the job.

Under the old model, pipeliners required an average of two to three years of training and observation to reach proficiency. With the new structured training approach, pipeliners are expected to reach proficiency and be fully productive within one year. This will save the business approximately 120 days of productive work per employee over two years.

**FINAL THOUGHTS**

A structured approach to training accelerates learning through a combination of instructor-led and on-the-job training, performance support and continuous coaching. As a result, field workers are able to become more skilled and productive in a shorter amount of time. This not only equates to a significantly greater number of productive days earlier in an employee’s career but also a substantial return on investment for the business.

John Benoit is the vice president of Energy & Utilities and Amy Borgmeyer is a senior consultant, both at Mosaic, a national training and workforce consulting firm that focuses on utility and oil and gas industries. Benoit has 20 years of experience in gas transmission, and Borgmeyer is the focus area lead for Mosaic’s field operations training service offering.