CASE STUDY

Custom Electrical and Mechanical Maintenance Training at a Specialty Metals Company

SITUATION

This specialty metals company is a world leader in the technology, production, and marketing of specialty materials, including stainless steels, grain-oriented electrical steels, titanium and nickel alloys, as well as other advanced alloys. Their metallurgists regularly visit customers and make joint visits with service centers to define customer requirements. Headquartered in Pittsburgh, Pennsylvania, this client serves customers in diversified consumer and capital goods markets in more than 30 nations.

The Challenge

A new labor agreement with the United Steelworkers (USWA) sparked a restructuring at this organization. Traditional mechanical and electrical craft classifications were eliminated, and the situation was made more complex with personnel at a variety of skill levels spread out over a dozen plant locations. Production personnel were now needed to assist in the maintenance process, resulting in over 1,000 employees who needed to receive some level of maintenance training.

Compounding the situation, an early retirement offer was accepted by more than 30% of the active maintenance workforce. Considering the vast number of personnel who required training, a complex and multi-faceted training program had to be quickly implemented. GP Strategies® was selected to prepare their workforce for the transition that needed to take place.
GP Strategies Solution

GP Strategies approached the project in three phases: design, development, and implementation. In the design phase, GP Strategies conducted maintenance training assessments at four plant sites. At each site, GP Strategies performed a skills gap and training needs analysis, identified learning objectives, designed and mapped three maintenance training curricula, and submitted detailed training plans for each discipline. It was determined that a high degree (60% to 70%) of hands-on lab instruction would be needed to reinforce all craft training. The design phase was completed within two months.

In the development phase, GP Strategies customized existing mechanical and electrical maintenance courseware to meet operator maintenance training and craft skill training objectives. To address the on-site, hands-on training requirement, GP Strategies developed two craft training centers: one centralized training facility at the Brackenridge, Pennsylvania plant and a second training center in Washington, Pennsylvania. To facilitate hands-on learning, welding labs, rigging and crane operations, alignment carts, hydraulic and pneumatic systems, and mechanical training components were fabricated and assembled at each site. An extensive electrical technician training lab was also built at the Brackenridge training center. The development phase of this project was completed in less than three months.

For the implementation phase of the project, GP Strategies hired 22 retired craftsmen and supervisors as part-time employees, conducted train-the-trainer and classroom observation sessions, and qualified the retirees as instructors. This provided both a cost-effective and highly knowledgeable approach to the instructional process.
The Training Model

**PHASE 1 Program Design**
- Preliminary curriculums, course outlines, conduct hours, lab designs, and equipment lists.
- Site assessments to verify task/skill alignment.
- Assessment report, final curriculum, course descriptions, and detailed training plans.
- Cost estimate for development and implementation.
- Schedule for development and implementation.

**PHASE 2 Program Development**
- Provided additional technical instruction staffing capacity while managing instructor performance and development.
- Developed operator, mechanical, and electrical courseware and training materials.
- Designed, assembled, and tested all instructional lab equipment and tools.
- Developed all mechanical and electrical lab exercises.
- Developed classroom demonstrations and hands-on exercises for operator training.
- Developed two training centers (Brackenridge and Washington, Pennsylvania).

**PHASE 3 Program Implementation**
- Operating Technician Training
  - Conducted over 80 operator training sessions (3,200 classroom hours) at eight plant locations.
  - Trained approximately 1,500 production personnel.
- Mechanical Technician Training
  - Conducted over 240 modules (9,600 classroom hours) at four plant locations.
- Electrical Technician Training
  - Conducted over 50 electrical modules (2,000 classroom hours).

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About GP Strategies
Founded in 1966, GP Strategies delivers performance improvement programs that strategically align with your unique business objectives and differentiate your global workforce, leaders and salespeople to ensure business excellence. Our sole focus is performance improvement, and everything we do, from technical and compliance training to process improvement and human capital technology integration, is focused on helping your organization deliver meaningful results. Visit gpstrategies.com for more information.