



Ahlstrom Kamyr

- Developed an OEM and site-specific digester training program for a Brazilian installation.

AK Steel – Middletown Works

- Provided customized Root Cause Failure Analysis and Problem Solving and Decision Making courses
- Conducted operator training for Annealing and Aluminizing Lines
- Developed detailed SOP's and operation instruction for all production operations, quality control and labs

AK Steel – Rockport Works

Plant Start-Up

- GP provided all elements of plant startup training, commissioning, and procedure development for AK Steel's Rockport Works state-of-the-art facility in Rockport, IN. Scope of services included:
 - Job and task analysis and training plan development
 - Maintenance, operator, and management training design, development, and delivery
 - Project management and coordination services
 - Procedure and FMEA development
 - CMMS data development
 - Quality system implementation
 - Operator certification program
 - Structured on-the-job training
 - Team building and leadership training
 - Work flow consulting
 - Coordination of vendor-conducted training



Alcoa

Tuition Administration

Alcoa awarded its tuition administration to GP in 2006, changing vendors after being with the same supplier for over five years. Alcoa cited poor customer service and lack of a partnership approach as reasons for leaving their previous vendor. After GP's presentation to Alcoa that included GP's ISO registered processes and formalized Project Management approach, Alcoa had a positive impression of GP's capabilities. As well, Alcoa conducted a site visit to GP Troy, and after meeting the GP team, selected GP from the competition due to its focus on people, processes and technology. Services provided to Alcoa include:

- Tuition administration
- Help Desk support

Alcoa Aluminum - Davenport

- Conducted a training needs analysis for the Tube Mill, and set up an Access database for all Tube Mill training data
- Conducted Power Transmission course as an integral part of the Millwright Apprenticeship program

Alcoa Aluminum - Lafayette

- Assisted in establishing the QS-9000 system
- Conducted failure modes and effects analysis (FMEA) courses
- Conducted statistical process control (SPC) training.

Allegheny Ludlum Corporation

- Conducted maintenance planning and scheduling training
- Conducted on-site maintenance training for 1,200 production personnel at eight plant locations in four states
- Developed and fully equipped one electrical maintenance and two mechanical maintenance and training centers
- Conducting on-site multi-skill electrical maintenance and mechanical maintenance training at three locations
- Providing welding training for mechanical technicians to pass ASW D1.1 Structural Weld Test and ASW 6-G Pipe weld Test
- Providing Air Conditioning & Refrigeration training for electrical technicians to prepare students to take the ACCA Section 608 Certification Exam and perform hands-on troubleshooting and system repair



Heavy Industry Project Experience

- Developed and conducted Advanced Hydraulics courses specific to three coil processing lines at the Brackenridge Plant. Instruction included “hands-on” troubleshooting and servicing hydraulic systems and components on the equipment during down-days.
- Developed and implemented TPM in three operating departments at Allegheny Ludlum’s Washington Plate facility

Allegheny Particleboard

(Note: Bought by Temple Inland)

- Provided stand up classroom instruction to maintenance personnel
- Provided standup classroom instruction to mill managers on Conflict Resolution

Appleton Papers

- Developed a site-specific super calender training program for a new installation in Newton Falls, New York.

ArcelorMittal - Burns Harbor

- Designed and developed an operator training program for Steel Producing waste gas system
- Developed and implemented a ten-week Instrumentation and Combustion Technician training program

ArcelorMittal - Cleveland

- Developed and delivered customized Root Cause Failure Analysis courses for the Maintenance and Quality departments

ArcelorMittal – East Chicago

- Completed a job task analysis and developed a self study-based, structured on-the-job training certification program for each operator position at the following operating areas:
 - #5 pickle line
 - #5 galvanize line
 - #1 normalize line
 - 80-inch tandem mill
 - #5 and #6 batch anneal
 - Finishing east slitter and inspection lines
 - 28 and 29 temper mills
 - 84-inch hot strip mill heating and rolling
 - Sinter plant
- Designed and developed training materials and conducted training sessions for operations and maintenance personnel to support the #5 pickle line tank replacement project



- Designed and developed training materials and conducted training sessions for operations and maintenance personnel to support the #5 galvanize line furnace replacement project
- Designed, developed, and delivered sessions of a substation maintenance training program
- Implemented a mechanical apprenticeship training program
- Designed, developed, and provided sessions of electrical and mechanical maintenance training for the Taylor-Winfield automatic weld machine installed in the #5 galvanize line
- Designed, developed, and provided sessions of operations and electrical and mechanical maintenance training for a mechanical and electrical improvement project at the #5 pickle line:
 - Taylor-Winfield automatic welder operations and maintenance training
 - Oxygen depletion system operations and maintenance training
 - Temate® 2000 operations training
 - Entry section automation operations and maintenance training
 - Entry section hydraulics mechanical maintenance training

ArcelorMittal - Georgetown

- Developed and conducted the following courses
 - AC/DC motor repair
 - Equipment foundations
 - Rigging fundamentals
 - Electrical instruments and measures
 - Industrial pneumatics

ArcelorMittal - Hamilton, Ontario

- Provided a comprehensive scope of training-related services in support of the DoSol Galva (DSG) Galvanize Line startup:
 - On-site training coordination services
 - Job task analysis and program design
 - Quality systems training and implementation support
 - Galvanizing line theory and process overview training
 - Basic mechanical training curriculum
 - Basic electrical training curriculum
 - Equipment-specific maintenance and troubleshooting training
 - Operations job task certification curriculum development
 - Operations procedure writing support
 - Operations on-the-job training support during commissioning



Heavy Industry Project Experience

- Developed and conducted electrical maintenance training for a new x-ray thickness and profile gauge at the #2 hot strip mill
- Provided a comprehensive scope of training services in support of the #2 hot strip mill hot band improvement project (HBIP):
 - Custom Toshiba automation and controls training
 - Equipment-specific mechanical maintenance training (roughing, finishing, and descale equipment)
 - System-specific operator training
- Developed and conducted custom Alstom Controls automation and troubleshooting training for cold mill operations and maintenance personnel
- Provided basic PLC training for tin mill maintenance personnel
- Conducted training needs assessment (TNA) for #2 CPCM
- Developed and delivered Shutdown Delivery Improvement Process (The SDIP Game) for the #2 hot strip mill
- Provided coordination, development, and equipment-specific training for #2 Blast Furnace Rebuild:
 - Conducted training needs assessment (TNA)
 - Provided on-site coordination
 - Developed overview, operator, maintenance, and hydraulic system maintenance and troubleshooting training
- Provided “Project Readiness Assessment” and “Project Bottom Line Success/Project Management” for #2 Blast Furnace Rebuild
- Used Six Sigma Methodology to help establish and implement new maintenance processes for Steel Producing

ArcelorMittal - I/N Tek and I/N Kote

- Conducted industrial mechanical skills courses for planners and mechanics



ArcelorMittal - Lukens

- Analyzed, designed, developed, and implemented a motor inspector training program for entry level personnel. The results included classroom instruction, laboratory sessions, and on-the-job (OJT) periods
- Developed and conducted an Electronic Control Technician program to support a pay-for-skills program
- Developed a maintenance skill and knowledge testing program for advanced craft progression
- Performed a Job Task Analysis. Based on its data, GP developed knowledge and skills tests for Industrial Electricians, Electronics/Instrumentation Repairmen, and Mechanical Millwrights. The tests were designed to support a new AA competency level in the maintenance workforce. Both knowledge and skills tests were proctored and graded by GP. Results of the testing helped to establish training mechanisms to support Lukens Steel.

ArcelorMittal - Sparrows Point

- Developed a training plan to support the startup of the Continuous Pickle Line/Tandem Mill
- Completed a training needs analysis to support the startup of the Continuous Pickle Line/Tandem mill
- Completed a training needs analysis at the Basic Oxygen Furnace plant
- Supported the Instrument Training Program by performing the following:
 - Developed and conducted Advanced Instrument Training
 - Conducted a process controls course for the Sparrows Point facility
 - Conducted instrumentation training in support of ISA curriculum

ArcelorMittal - Steelton

- Developed a comprehensive cross-craft, maintenance training program for Pennsylvania Steel Technologies, Inc. The following services were performed:
 - Completed a training needs analysis and program design
 - Built an on-site training center
 - Designed and developed a training program and materials
 - Procured classroom training materials
 - Identified, designed, and built laboratory trainers
 - Developed laboratory exercises
 - Provided sessions of classroom and laboratory training
- Conducted rigging training and certification



Beth Forge, Inc.

- Provided training and technical documentation to support the Steel Producing technology transfer from one facility to another:
 - Performed needs analysis and program design
 - Developed a training program and classroom training materials
 - Developed and conducted on-the-job (OJT) training materials
 - Developed a storyboard and performed complete video taping and editing
 - Designed and developed “Best Practices” procedure template
 - Developed and implemented ISO program
 - Designed and implemented an operator certification process

Birmingham Steel

- Developed and conducted a troubleshooting course for Birmingham’s electric arc furnace startup

Blandin Paper Company

- GP conducted a 24-hour instructor led classroom Project Management Training course at the client site using off the shelf material.

Blue Circle (Roberta Plant)

Training Program: Needs Analysis

Blue Circle contracted GP to develop a training program that would address the needs of the plant for the expansion project. The expansion will incorporate a production process and equipment that are new to the Roberta operators and maintenance workers.

GP first conducted a job task analysis to determine the current and future tasks of production and maintenance personnel at the Roberta plant. The analysis revealed the following:

- No training is necessary for production and maintenance basic skills.
- Familiarization with the new process and equipment is required.
- Training on field operation and maintenance of the new equipment is required.
- Training on control room operations is required.

Based on the analysis, a detailed training plan was developed to address specific areas of training necessary for Roberta plant personnel. The training program will include classroom and field instruction from GP that will familiarize Blue Circle personnel with the new process and equipment, and provide operations and maintenance training.

GP is encompassing existing courseware, newly developed courseware, and vendor training on specific equipment and simulator training for control room operators into the training program.



Boise Cascade Corporation

- Developed site-specific operator/maintenance courses on Honeywell TDC 2000/3000 systems for the paper machine and stock preparation.

Brown Printing

- Performed a job/task analysis resulting in many recommendations for process improvement across the entire range of operations and maintenance at this major magazine publisher. Many recommendations were acted upon immediately and with positive results.

California Steel

- Developed and implemented training programs in support of the 5-stand rolling mill modernization.
 - Structured on-the-job training program
 - Operator certification program
 - Operating practices and procedures
- Completed a training needs assessment and developed a training plan to support the startup of the #2 CGL (hot dip)
- Developed and implemented an operator training program for the #1 CGL (hot dip)
- Developed and implemented an operator training program for the pickle line

Carpenter Technology Corporation

- Provided process safety management training
- Developed and delivered a high voltage electrical course
- Delivered programmable logic controller (PLC) courses
- Provided project management training
- Developed standard and emergency operating procedures for annealing furnace operations.

Cedar River Paper Company

- Designed and developed site-specific, objective-based, operator training manuals and tests in support of the 100% recycled containerboard No. 1 paper machine startup.

Champion International Corporation

(Note: Bought by International Paper)

- Developed a maintenance work force pay-for-skills training program in Sheldon, Texas.
- Provided a training coordinator that helped Champion develop operations training materials. Also helped Champion personnel update existing training materials for "B-mill" on-site in Roanoke Rapids, North Carolina.



Heavy Industry Project Experience

- Provided on-site support to wastewater treatment personnel to develop job-specific operating procedures and theory for the mill's wastewater treatment facility in Bucksport, Maine.
- Provided instrumentation and control familiarization to electricians in the Deferriet, New York facility.

Chaparral Steel

- Conducted an on-site maintenance program assessment for the Midlothian, TX facility. The assessment involved maintenance organization, and training, work control systems, implementation of maintenance activities, evaluation, analysis, and controls. GP also provided benchmark data of the existing program against the goals the desired program improvements as well as modern, industry-recognized maintenance standards.

Consolidated Papers, Inc.

- Evaluated/upgraded instrument mechanic and electrician apprentice training program.
- Developed a maintenance training curriculum for Mid-States Technical College through Consolidated Papers.
- Developed and conducted a Bailey INFI 90 course for electrical trainers.

Cressona Aluminum (Alumax)

- Conducted Allen Bradley PLC-5 training
- Provided CMMS overview training

Fort James Corporation

(Note: Bought by Georgia-Pacific)

- Provided a bearing failure analysis course at the Rincon, Georgia facility.
- Developed a site-specific, extruder training program for an existing installation in Kalamazoo, Michigan.

Galvpro L.P.

- Provided a comprehensive scope of services in support of a greenfield galvanize line startup:
 - Project Management and Coordination
 - Training Plan Development
 - Galvanizing Process and Theory training
 - Line-specific operations training
 - Line-specific safety training
 - HAMAT training
 - OSHA training



- Team skills training
- Train-the-Trainer program for supervisors
- ISO-9000 quality system consultant

Georgia-Pacific

- For the Big Island Mill, GP provided equipment-specific, objective-based operator training manuals for the new Voith Stock Prep and Valmet Paper Machine. Provided on-site classroom instruction for new operators, providing a smooth transition to self-directed work teams. These training materials were used to train the operators prior to engineering checkouts and system start-up. Developed and conducted power and recovery courses. Modified the E&I and mechanical maintenance apprentice programs. Provided a training coordinator for No. 1 paper machine rebuild.
- Developed power and recovery courses including operating, testing, and troubleshooting procedures and exams for mills in Monticello, Mississippi, and Port Hudson, Louisiana.
- Developed and conducted power and recovery courses. Developed and conducted power and recovery fundamentals courses. Developed boiler safety newsletter. Developed extraction oxygen peroxide course. Developed water plant manuals for Woodland, Maine.
- Developed a comprehensive emergency plan for Cedar Springs, Georgia and Port Hudson, Louisiana facilities.
- Developed an instrument mechanic apprentice and electrician apprentice training program for the mill in Port Edwards, Wisconsin.

Gerdau AmeriSteel

- Developed and conducted a Radiation Safety Officer's course.
- Implementing the Gerdau Business System and equipment reliability process at ten steelmaking plants in U.S. and Canada, and downstream operations. This project is in support of Gerdau's acquisition of several North American plants. Performance improvement initiatives include:
 - 5S and visual management
 - Plan-Do-Check-Act (PDCA) culture
 - Team problem-solving
 - Lean principles and waste reduction
 - Total Productive Maintenance (TPM) and autonomous maintenance
 - Goal deployment
 - Daily management
 - Equipment reliability
 - Continuous flow
 - Quick changeover
 - Rapid Improvement® Workshops (RIW)



Heavy Industry Project Experience

- Conduct annual Executive Leadership Boot Camps
- Conducted maintenance training needs analysis and program design services for their Co-Steel and North Star plants
- Designed and delivered plant-specific hydraulics and PLC courses

Gulf States Paper Corporation

- Performed a training needs analysis and a maintenance training program report at the Demopolis, Alabama facility.

Hanson Permanente

Workforce Assessment and Training Program Alignment

The initial phase of the project included workforce assessment, task confirmation, curriculum alignment, development and approval of training plans for operators and maintenance personnel. Also developed were milestone schedules and cost estimates for course and lab development and training program implementation. GP provided the following services in Phase 1:

- Conducted a workforce assessment to establish knowledge and skills of current workforce
- Performed a job and task analysis to define the knowledge and skills required to perform specific tasks as defined by Hanson Permanente
- Developed and submitted an assessment final report GP that aligned knowledge and skill requirements, defined curriculums and course outlines, and mapped course requirements and progression
- Developed cost estimates (+/-10%) and milestone schedules for Training Program Development (Phase 2) and Implementation (Phase 3)
- Completed course development and lab equipment build-out for Phase 2.
- Initiated and currently conducting comprehensive operator and maintenance training programs.

Hudson International Conductor

- Conducted a maintenance program assessment for this Phelps Dodge subsidiary. The assessment identified opportunities for improvements in corrective, preventative, and predictive strategies, training, procedures, and planning.

Inland Packaging and Paperboard

- Provided site-specific operator training manuals and task checklists for major plant equipment/systems at the following Inland Box Plants;
 - Crawfordsville, IN
 - Lexington, SC
 - San Jose, Mexico



- Dallas, TX
- Streetsboro, OH
- Provided site-specific operations training materials to support the start-up at the Maysville, Kentucky 100% recycled containerboard paper machine.
- Researched and developed equipment-specific, objective-based operator training manuals for all of Temple-Inland's new No. 5 paper machine systems. Provided several training manuals that are not equipment-specific but are mill-specific. Some titles include "The Business of Paper making," "The Production Management System," and "P&ID Interpretation Manual." GP was also contracted to provide complete maintenance support through cataloguing of spare parts and creating hundreds of equipment-specific maintenance procedures.

International Paper Company

- Performed job/task analysis for the Lewisberg, Pennsylvania Maintenance Department in addition to a pay-for-skills progression training map and training guides for each maintenance area.
- Developed a digital controller and train-the-trainer course for the Towanda, Pennsylvania plant.

Jefferson Smurfit Corporation

- Developed training materials and taught courses to the Pulp Mill, Utilities Area, and the Chemistry Department.
- Standardized/wrote testing and operating procedures for the Pulp Mill, Utilities, and Chemistry Departments in Jacksonville, Florida.

Kimberly-Clark Corporation

- Provided the following services to various Kimberly-Clark facilities:
 - Cross-craft training program
 - Training aids to support training
 - Instructor-led courses and OJT modules
 - Instructor-led train-the-trainer/transfer of ownership
 - Spare parts procurement
 - Predictive/preventive maintenance task identification and procedures
 - Maintenance training program and training modules
 - Spare parts evaluation and ordering
 - Work orders for preventive/predictive maintenance
 - Site-specific system manuals
 - Operating systems and maintenance training manuals
 - Train-the-trainer course to teach proper ISD development methods
 - Job/task analysis in four maintenance areas



Heavy Industry Project Experience

- Basic maintenance courses in several craft areas
- Site-specific equipment training courses
- Site-specific, digital electronics for electricians
- Taught courses for maintenance electricians in the following topical areas:
 - Electronics for electricians
 - Allen-Bradley, variable-speed motor drives
 - Programmable logic controllers using GE Series I & VI
- Translated technical material to French for a European mill

Langston Corporation

- Designed, developed, and published many full-color, world-class operator's manuals, lubrication manuals, and procedures to compliment Langston's world-wide corrugated equipment manufacturing efforts. Continuing to act as Langston's publisher so that these top-of-the-line operator's manuals are shipped with each piece of machinery ordered by Langston's customers.

Liberty Paper Inc.

- Designed and developed several site-specific, objective-based, operator training manuals in support of the 100% recycled containerboard paper machine startup.

Longview Fibre Company

- Developed a training program for maintenance employees.
- Developed chlorine and chlorine dioxide operating instructions manual.
- Developed hazardous materials technician training manual.

MacMillan Bloedel

- Developed recovery boiler and power boiler operator manuals for the Pine Hill, Alabama facility.
- Developed and conducted training courses for Honeywell TDC site-specific equipment, including system descriptions for paper machines, TMP, groundwood, bleaching, and burner management job/task analysis and training programs for wood room electricians at the Powell River facility.
- Developed, in conjunction with EITI, student manuals, instructor guides, and procedures for the Powell River facility.

McKinley Paper Company

- Designed and developed site-specific, objective-based, operator training manuals for all mill systems to support this 100% recycled containerboard paper machine. Also providing maintenance procedures and related support services to the mill.



Mead Corporation

- Developed and conducted a turbine generator electrohydraulic control course for the Escanaba, Michigan facility.

North Star Steel

- Developed and conducted a high voltage switching and safety course

North Star Bluescope LLC – Delta, Ohio

- Developed and conducted the required training for power users, planners and schedulers for a version upgrade to their CMMS.

Nucor Corporation

- Developed a comprehensive corporate-based training and development plan. The following services were performed:
 - Conducted on-site evaluation of training and development activities at each Nucor fabricating and steelmaking facility
 - Documented best practices of all training initiatives across all divisions of Nucor
 - Compiled final report recommending a structured, comprehensive approach to training and development for all Nucor employees
- Developed and conducted an equipment-specific hydraulics training for the Nucor Steel – Indiana hot strip mill

Nucor Steel Birmingham

- Developed and conducted a troubleshooting course for Birmingham’s electric arc furnace startup

Nucor – Tuscaloosa

- Developed and GP is currently conducting Root Cause Failure Analysis training combining a safety and operational application
- Currently developing 5S and Six Sigma training combining classroom and coaching through actual application

Owens-Illinois

- Designed and developed journeyman training to provide cross-craft and advanced technology maintenance skills to over 600 maintenance personnel. The program consisted of classroom instruction; state-of-the art, hands-on laboratory training; and on-the-job evaluation. A trainee placement assessment was also established. Skill and knowledge verification occurred through a combination of hands-on exercises and written tests.



Ponderosa Fiber

- Provided a preventative maintenance checklist in support of the paper machine maintenance program.

Procter & Gamble Paper Products Company

- Developed the following electrical training courses; Electricity and Electronics, Print reading, Motor and Motor Control Centers, Transformers, and Test Equipment for the Mehoopany, Pennsylvania facility.

PRO-TEC Coating Company

- Provided training and technical documentation to support the installation of the #2 continuous galvanize line. Specifically, the following services were provided:
 - Training needs analysis
 - Job and task analysis of various operator and maintenance positions
 - Developed and conducted on-the-job training materials and evaluation
 - Develop training materials for operators on the #1 continuous galvanize line
 - Develop training materials for Utility Services Operators and Quality Assurance Testing
 - Develop training materials for operators on the #2 continuous galvanize line
 - Develop training materials and conduct hands-on training for electrical and mechanical technicians
 - Provide an on-site Project Coordinator for “turn-key” training support

Repap

- Developed a commercial-quality production video that introduces new employees and customers to the fundamental paper making processes of the W-7 machine in Kimberly, Wisconsin.

Riau Paper

- Provided six-weeks of on-site instruction to local Indonesian papermakers covering the entire series of processes in support of the new Valmet paper machine installation. Instructional materials were highly praised by equipment manufacturer as being extremely relevant and accurate even without an equipment manifest.

SMI Steel

- Developed and conducted operator and maintenance training in support of the back shear tie bundler system startup.
- Developed operating procedures for the back shear tie bundler system.



Solvay Paperboard

- Researched and developed equipment-specific, objective-based operator training manuals for all mill systems. Provided technical support for the new computerized maintenance management system, ending with a complete preventive maintenance schedule. Produced many position and equipment-specific procedures from start-up and shutdown for all of the wet-end and dry-end paper testing procedures.
- Developed self study and OJT training material in support of the maintenance multi craft program.
- Developed operating training materials in support of the PM3 start-up

Southern Container Corporation

- Developed modular-format, equipment-specific operator training manual for a Saturn III flexo-folder gluer.

Steel Dynamics - Galvpro

- Provided a comprehensive scope of services in support of a greenfield galvanize line startup:
 - Project Management and Coordination
 - Training Plan Development
 - Galvanizing Process and Theory training
 - Line-specific operations training
 - Line-specific safety training
 - HAMAT training
 - OSHA training
 - Team skills training
 - Train-the-Trainer program for supervisors
 - ISO-9000 quality system consultant

Stone Container Company

- Provided job/task analysis for electricians and instrument technicians at both the Missoula, Montana and Snowflake, Arizona mills. GP also developed courses in basic hydraulics, basic pneumatics, basic mathematics, and print reading for the Panama City, Florida facility.



Sweetheart Cup Company

- Developed and published an exhaustive flexographic paper printing operator training program including review questions, exams, instructor guides and color transparencies in support of Sweethearts corporate initiative to upgrade operator training in this area. Provided materials to six plants.
- Performed a job/task analysis of the injection molding process resulting in a complete course map and recommended curriculum for all associated operators and maintenance personnel.

The National Forge Company – Warren, PA

- Coached and facilitated a Lean conversion through a series of Rapid Improvement® workshops capturing the production processes, planning and scheduling, production planning, order entry, and customer service.

The Timken Company

- Developed and implemented a comprehensive on-site, equipment-specific apprentice maintenance training program for steel group of The Timken Company. The following services were provided:
 - Designed and developed training program and materials
 - Procured classroom training materials
 - Designed, developed, and built mechanical and electrical labs
 - Developed laboratory exercises
 - Provided sessions of classroom and laboratory training
- GP instructors are currently on-site providing classroom and hands-on training and certification. Also developing journeymen-level courses

Union Camp Corporation

- Provided system descriptions and training manuals for:
 - New installation of 115kV substation
 - Load shedding
 - Energy management system
 - Forney flame system and TRS gas system
 - Compressed air system
 - Steam and condensate system
 - Fresh and recovered water system
 - Turbine Generator
 - Old and new Demineralized Water Systems



United Corrstack, Inc.

- Provided complete, site-specific manuals, procedures, job aids, classroom and OJT training, and start-up support services. GP was the sole training vendor for United Corrstack's 100% recycle corrugated medium mini-mill.

United Container Machinery

- Designed, developed, and published several owner's manuals in support of United Container's efforts to upgrade manufactured equipment documentation.

US Steel – Corporate

- GP is a partner with USS Engineering to provide capital projects assessment and training support services.
- GP is currently developing business flows and training materials to support U.S. Steel's enterprise system, Passport. Providing Project Management services to support the data migration effort of the recently acquired National Steel plants to Passport.
- GP is currently rolling out U.S. Steel's corporate reliability program, implementing world-class maintenance practices at the following plants:
 - Clairton Works
 - Edgar Thomson Works
 - Fairfield Works
 - Gary Works
 - Minntac
 - Mon Valley

US Steel – Corporate

Incident Investigation Program

- GP collaborated with the USS Corporate Safety Steering Team to design, develop, implement, and evaluate a new Incident Investigation Program for all of USS management.
- GP began design and development in spring of 2006 and conducted three pilot conducts with the Steering Team to refine the program.
- GP conducted two Train-The-Trainer sessions; one in Serbia for USS's International trainers, and one in Pittsburgh for the domestic trainers
- The Incident Investigation Program consists of an intense two-day course that covers the following topics:
 - Process Overview Presentation
 - Administrative Requirements Presentation
 - Immediate Actions Presentation
 - Determining the Cause of an Incident Presentation



- On-Line Demonstration of the Safety Record Keeping System
- Fact Gathering Presentation
- Forklift Incident Exercise Presentation
- Conducting Interviews Presentation
- Effective Action Plan Presentation
- Post Investigation Audit Presentation (15 minutes)
- The two-day course contains several videos and includes a group discussions and role-playing exercises after each presentation
- The program was simultaneously implemented with three teams of two instructors teaching four days each week at three different USS facilities until all personnel had the opportunity to attend one of the sessions.
- After completing a facility, the team moved to the next scheduled facility.
- Twenty-one weeks into the rollout (early December 2007), 63% of the approximately 2000 potential students have received the training.

US Steel – Corporate

Safety Leadership Workshop

- GP delivers two-day and half-day Safety Leadership Workshops to USS personnel
- GP modified an existing two-day course to create a four-hour Safety Leadership Training program for USS Staff personnel
- The two-day Safety Leadership Workshop is designed for facility line managers/supervisors who have direct responsibility for supervising hourly employees, and for Staff Personnel (facility, Headquarters, BSC, Techcenter, etc) who are closely aligned with the operations and spend time in the operating areas. It covers the following topics:
 - Felt Leadership
 - Risk Management
 - Safety Huddle
 - Job Safety Analysis (JSA)
 - Safety Conversation Process
- The four-hour Safety Leadership Training for Staff and Support Organizations is designed for Staff personnel who directly supervise or oversee others in their daily activities, and for staff personnel who visit operating facilities but do not directly supervise others. It covers the following topics:
 - Office Safety Reminders
 - Felt Leadership
 - Risk Management
 - Safety Huddle
 - Job Safety Analysis (JSA)



- Safety Conversation Process
- GP has been delivering these workshops since the beginning of 2007
- The two-day workshop is designed for two-instructors and the four-hour training is designed for one instructor.
- Each course includes multiple group discussions and role-playing exercises

US Steel – Clairton Works

World Class Maintenance Project

- GP conducted assessments with USS internal consultants to determine current state at Clairton against world-class standards
- Facilitated maintenance steering committee to determine future state
- Mapped current and future state maintenance processes
- Developed detailed project plan
- Currently contracted to assist in implementation:
 - Inventory management control
 - Performance models & standards for maintenance job positions
 - Maintenance department reorganization
 - Critical equipment analysis (CWPRO) and corresponding PM program adjustment
 - Operator inspection program
- Developed a 5 year Equipment Restoration plan and monitored progress for two years after approval. Transitioned the process to the designated SME's

US Steel – Edgar Thomson Works

- Completed a training needs analysis for a No. 3 blast furnace rebuild project
- Provided training coordination services in support of a No. 3 blast furnace rebuild project
- Developed and delivered operator and maintenance training sessions to support the No. 3 blast furnace rebuild project. Courses included:
 - Furnace Cooling System Operation
 - Furnace Cooling system Maintenance
 - Valves and Valve Actuator Maintenance
 - Stockhouse Operation
 - PLC Overview
 - Allen-Bradley PLC Refresher



US Steel - Fairfield Works

- Facilitated the revision and development of operations procedures
- Performed a training needs analysis for a Galvanize Line upgrade
- Provided training and technical documentation to support the update of the continuous galvanize line. Services included:
 - Training program design
 - Job and task analysis for the various operator and maintenance positions
 - Developed and conducted on-the-job training materials
 - Developed operations training materials
 - Developed electrical and mechanical maintenance technician training materials
- Implementing full scope electrical and mechanical learner programs complete with comprehensive classroom instruction; hands-on, equipment-specific training labs; and on-site management and coordination

US Steel - Fairless Works

- Performed a training needs analysis for a galvanize line upgrade
- Provided training and technical documentation to support the upgrade of the continuous galvanize line. Services included:
 - Training program design
 - Job and task analysis for the various operator and maintenance positions
 - Developed and conducted on-the-job training and evaluation materials
 - Developed operations training materials
 - Developed electrical and mechanical maintenance technician training materials

US Steel - Gary Works

- GP has provided services for various areas at US Steel – Gary Works. A few representative projects include:

Hot Strip Mill

- Established a complete operator training program for the coilers. Delivery methods include classroom manuals, video, and CBT
- Established a complete operator training program for the CNC roll grinders. Materials consisted of on-the-job training guides, classroom manuals, lab exercises, and an operator certification program
- Developed a maintenance performance improvement program for the coilers at the 84” hot strip mill which identifies the appropriate maintenance tasks and technologies
- Instituted an inspection program to build backlog and improve maintenance turn efficiencies
- Facilitated changeover to new system in the mill



- Provided comprehensive custom electrical technician training on GE series 2000 equipment (controllers, drives, panels, and PLCs) in support of the hot strip mill coiler upgrade

Steel Producing

- Developed and delivered operator and maintenance training for new emissions controls on BOP furnace
- Developed procedures for new equipment
- Developed a Caster Department specific hydraulic system maintenance and troubleshooting program. This program provides Caster assigned trades personnel information, knowledge, and techniques for operating and maintaining all major department hydraulic systems. Materials include lessons learned based on historical data and industry accepted practices. The course provides a complete cross-craft understanding of the systems and associated problems and corrective procedures for all interacting trades.

Electro galvanizing Line

- Analyzed, designed, and developed an autonomous operator maintenance training program.

Turbo Blower Boiler House

- Developed and delivered operator and maintenance training sessions related to a capital improvement project for the turbo blower boiler house (TBBH) system. Courses included:
 - Upgrade Project Overview
 - Combustion Control and Burner Management
 - Human-Machine Interface description and overview
 - ID and FD upgrade overview
 - Boiler Operations
 - Steam Production System Response

No. 6 Blast Furnace – No. 2 Stove

- Developed and delivered operator and maintenance training sessions related to an upgrade of the No. 62 Stove

Quality Department (APEX)

- Developed a new employee training program for APEX quality system.

Environmental and Safety Department

- Developed and conducted HAZMAT and Confined Space courses for US Steel management and hourly personnel.



Planning Department (AMEX)

- Designed, developed, and conducted Planning I & II workshops. Planning I is a two-day overview of business, work, and outage planning with an overview of project management tools and techniques. Planning II is a three-day, hands-on session focusing on the Computerized Maintenance Management System (CMMS)
- Developed and conducted mechanical and electrical inspection courses for planners

Coke Plant

- Developed P&IDs and schematics to support process safety management program
- Developed and conducted I&C for operators training program
- Developed a pumps CBT course for operators
- Developed 12-system-specific CBT course modules for plant operators
- GP maintains an on-site instructional team to conduct these maintenance training courses:
 - AC Controls
 - AC&R Regulations and Requirements
 - Basic and Advanced Hydraulics
 - Bearings
 - Centralized Grease Systems
 - Crane Handbook
 - DC Controls
 - Electrical and Mechanical Blueprints
 - Electrical Principles and Practices
 - EOT Cranes
 - Fasteners and Bolting
 - Gearing
 - HVAC Technician
 - I&C Troubleshooting
 - Instrument Communications
 - Lubrication and Oil Analysis
 - Millwright Program
 - Mobile Equipment Maintenance (Mechanical and Electrical)
 - Motor Hookups
 - Motor Inspection
 - PID Training
 - Pipefitting
 - PLCs
 - Process Controls and Process Measurement
 - Refrigeration
 - Shaft Alignment and Laser Alignment
 - Vibration Analysis
- For Operation Services performed PM Optimization for Utilities and Cranes including the development of SOP's to support new state condition

US Steel – Great Lakes Division

- Provided comprehensive training-related services in support of the #1 CGL startup:
 - Project management and coordination
 - Galvanizing theory and process overview
 - Line-specific operations overview
 - Mechanical and electrical fundamentals
 - Line-specific safety



- Structured OJT-based operator certification program
- Operations and maintenance procedures
- Facilitated on-the-job training during commissioning and startup
- Provided sessions of the following courses:
 - Design of Experiments
 - Statistical Process Controls (SPC)
 - Failure Modes and Effects Analysis (FMEA)
 - Root Cause Failure Analysis (RCFA)
 - Decision Making and Problem Solving with Teams
- Developed Inspector Training Program

US Steel – Granite City Division

- Developed a maintenance planner training program

US Steel – Irvin Works

84-inch Pickle Line

- Completed a comprehensive training, operations, and maintenance assessment
- Developed and delivered a series of line-specific equipment maintenance training courses.

64-inch Pickle Line

- Developed and delivered training sessions to maintenance personnel to support installation of a new Butech resquare shear

US Steel – Kobe

- Developed and presented a maintenance training course geared toward operating personnel to allow them to assist in daily and weekly preventive maintenance tasks on the Billet Conditioning Grinders. The training materials were written in a procedural format, using USS/Kobe's SJPs. This training was the first step USS/Kobe took towards a highly successful operator maintenance program
- Performed planner training for planners from a variety of shops within the mill
- Performed a task analysis for two maintenance positions in support of the apprenticeship initiative. Designed the OJT portion of an apprenticeship program for these two positions that met federal apprenticeship certification guidelines.



US Steel – Lorain Tubular

#3 Seamless Quench & Temper Upgrade Project

- Conducted training needs analysis
- Developed and conducted operator and maintenance training for new equipment and equipment upgrades
- Developed maintenance procedures
- Provided maintenance planning and scheduling training
- Implemented parts/inventory management system
- Provided maintenance program consulting
- Designed operator technician training program

US Steel – Midwest Plant

- Developed and conducted maintenance planning training. The course included planning concepts, CMMS, purchasing system, work order system, and maintenance techniques. The program consisted of 40 hours of classroom/lab training, followed by 8 weeks of coaching
- Developed an inspector training program
- Developed and conducted a cross-craft maintenance training program for a new hot dip galvanized line. The 36-week program provided specific training in the mechanical and electrical disciplines based upon the results of a formal needs analysis. Additionally, maintenance and operations personnel were provided interdisciplinary training in mechanical equipment, electricity, electronics, and line operation
- Developed maintenance engineering procedures
- Developed a self study troubleshooting course for the pinhole detectors on the Chrome and Tin lines. These materials were written in a job-aid format to allow maintenance personnel from other areas of the mill to effectively troubleshoot the equipment. The training material addressed operator level troubleshooting and mechanical troubleshooting items as well as electrical/electronic aspects of the equipment

US Steel – Minntac

- Used Rapid Improvement® methodology to improve extended outage performance through the facilitation of both contractors and in-house personnel. Reduced planned Agglomerator outage by 2.6 days while completing 4 additional projects.



US Steel - POSCO

- Developed and conducted the following courses:
 - Basic and Advanced Hydraulics
 - Fasteners
 - Laser Alignment
 - Motor Hookups
 - Process Controls
 - Radiation Safety Course
 - Shaft Alignment
 - Vibration Analysis

Westvaco Corporation

- Developed turbine-generator operator manuals for the facility in Luke, Maryland.
- Developed boiler auxiliaries manuals for the same facility.

Weyerhaeuser

- GP conducted 2 stand-up instructor led classes of the GP off the shelf “Rigging” training (Maintenance) course formally developed for the Kimberly Clark Corporation Everett, WA facility. Each course will be 16 hours in length and be conducted over a 4-day period on (client) site.

Willamette Industries, Inc.

(Note: Bought by Weyerhaeuser)

- Developed water treatment manuals. Developed qualification checklists for a pay-for-skills maintenance program and operations training program.
- Provided complete operations training support for the new No. 5 paper machine in Johnsonburg, Pennsylvania and training materials for older mill machines, including standard operating procedures and operating guidelines. Also revised training materials for the No. 1 paper machine upgrade.
- Developed training manuals for the No. 1 fine paper machine in Hawesville, Kentucky, including standard operating procedures and operating guidelines.
- Performed an operations task analysis of the paper machine and pulp line and developed training qualification checklists for the Marlboro Mill in Bennettsville, South Carolina.
- Performed calender and reel manual modifications for the Kingsport, Tennessee mill.
- Developed a training resource reference guide to support the maintenance training for the Indianapolis Corrugating plant.