A CIRCADIAN® Case Study

CIRCADIAN®
24/7 WORKFORCE SOLUTIONS

Underground Coal Mine

Challenge: Expanding to Seven-day Operation

Increased production requirements created the need for a “world class” underground coal mine to increase its output by 40-50%. This required the controversial expansion from 5 to 7 days per week to full 24/7, continuous production. Through strategic planning with Circadian, an improved production schedule was developed to maximize human asset utilization by deploying the mine’s manpower more efficiently. Significant capital improvements had been recently completed to help achieve the production. This included a new longwall mining system with increased capacity, as well as a new washplant to produce higher quality coal. Even with these improvements, the expected production needs were not being met. Through a careful evaluation of the production and maintenance schedules, Circadian identified potential improvements in deployment of employees that would increase production opportunity. This would require a significant change to the existing employee schedule, including a restructuring of the work teams and their job functions. The current schedule had isolated individual crews for production, and other crews for maintenance and preparation.tasks. This led to times when there was no production because the crews scheduled for work were not qualified for the task. In some cases, production would remain idle for upwards of 24 hours due to this constraint. There was also unscheduled down time of the longwall “miner” for repairs for the same reason.

The solution to this problem was to create four production crews with balanced skill levels and job functions, as well as to increase cross training. This enabled the mine to have the ability to produce coal at any time of day, rather than have to wait until a production crew was scheduled to work. Further, separate maintenance crews were always available for a regularly scheduled maintenance window, which was planned for each day, during which time the production crews caught up on “housekeeping” and preparation tasks.

As part of the schedule development, Circadian worked with the

CIRCADIAN® Technologies Inc
2 Main Street, Suite 340
Stoneham, MA 02180 USA
+1 781-439-6300
info@circadian.com
www.circadian.com

UNDERGROUND COAL MINE p2

employees to identify the ideal way to staff the production schedule to support the needed 24/7 production goal. This process allowed employees to have control over the overall schedule that would fit best within the operational needs but at the same time include their preferences for the overall shift schedule. Through educational sessions, employee surveys and focus teams, all of the employees were given the opportunity to participate and ultimately select the one schedule that would meet the majority of employee family, social and work needs. The end result was a successful implementation of a work schedule that improved the production capabilities of the mine, while satisfying the employee preferences.

CIRCADIAN® Technologies Inc
2 Main Street, Suite 340
Stoneham, MA 02180 USA
+1 781-439-6300
info@circadian.com
www.circadian.com