Rockwell Automation

A Process Application
Our Customer’s Challenge

- Remote oil production facility--swamp!
- Surrounded by H2O, no landline phones
- Operates automatically, unattended
- Environmental conditions--fisheries

Our customers require integrated automation solutions to gain a competitive advantage
The Solution: Rockwell Automation

- Recognized reliability
- Highly modular, integrated components
- Flexible, inter-operable systems that interface to proprietary systems
- The industry standard for automation solutions
- Maximizing existing investments
• The Application:
  – Remote monitoring of analog & digital sensing devices & alarm autodialing over cellular telephone

• The Scope:
  – The Verbatim/Cellulararm is programmed to monitor eight points:
    • float & pressure switches on oil & saline H2O tanks
    • temperature of separation vessels
    • compressor shutdown
Process Requirements Overview

- Alarm reporting system should be installed at the site to monitor oil production & oil/saline water separation operating parameters & automatically report any alarm condition to the company’s computer control center.

- Remote & hostile environment mandates wireless communication system for the alarm reporting function.

- Self-contained, rugged unit to mount into small, unclimatized building with cellular antenna mounted on roof.

- Alarm signal activates a computer screen showing the location & type of fault; if not acknowledged within 5 minutes, automatically places a call to production operator in a digitally recorded voice message describing the condition of alarm--operator dispatches maintenance crew to site.
Benefits of RA Control System

- When the central computer control is notified via the Verbatim/Cellulararm system, the signals are relayed to the responder which signals Allen-Bradley SLC-500 PLC
- The PLC actuates the fault screen on a PC-based control computer via an Allen-Bradley View Panel
- Authorized personnel can call the Responder from any touch tone phone anywhere and operate up to 8 remote devices
- If no alarms activate over time, the control computer operator calls the Verbatim to verify system/or listen to built-in microphone to hear background noises
System Overview

- RACO Verbatim Alarm Autodialer
- RACO Cellularm cellular communications system
- RACO Responder signals Allen-Bradley SLC-500 PLC
- Allen-Bradley Panel View
- Call in status reports from public telephone lines
- Easy touch-tone remote programming
Overall System Layout

Atchafalaya River Basin
Oil Site Layout
Control Integration

Central Production Facility
Bayou Sorrell, LA
Productivity Features

• Productivity increased from 10-12 hours of downtime a week to less than 2

• Oil production at this well is worth $40K/day

• Decreased personnel time checking on site

• Future scalability to link & automate other wells in area
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Atchafalaya River Basin, LA
Summary

• Verbatim reporting system up & working in less than 4 days

• Easy-to-use touch tone programming/reprogramming

• Increased productivity results--$

• Decreased manual labor time boating to site

• Scalable to link/automate all oil well production in area