Manpower planning & Data Integrity Helps Reduce Maintenance Costs

Background

The client, a major UK cement manufacturer, had embarked on an 'Organisational Excellence' project with assistance from *Rocksharp* consultants. The team required assistance to undertake a business process mapping exercise at a number of manufacturing locations and an assessment of the business improvement opportunities.

Legacy Consulting Assignment

Legacy was initially engaged to assist in the process mapping exercise covering both cement manufacture and quarry activities, and then retained to advise on the cost reduction opportunities. Legacy, working in conjunction with *SIMELCOM LLP*, were engaged to undertake further analysis at a second self contained plant, as part of the World Class Maintenance initiative.

Analysis and Design Findings

- Organisational Excellence review demonstrated cost reduction opportunities of £2.38m per annum
- Ineffective maintenance management was a major contributor to inefficiency
  - Typical repair & maintenance costs around £7m per year per site: 48% parts; 30% sub contract labour with limited control
  - Maintenance staff utilisation of 60% with high level of non value activity: waiting time, searching for parts/shortages, rework etc.
  - 50% of work done 'as arising' and planned work deferred, resulted in large backlog.
  - Unclear roles and responsibilities
  - Mis-use of IS dbase and poor data integrity

Consulting Approach

Legacy and *SIMELCON LLP* consultants assembled a joint project team with client team members. Our objective: to produce a robust maintenance planning process. Step one focussed on putting the basics in place that would be used as a foundation for efficiency savings and reliability maintenance methodologies.
The project was subdivided into four workstreams:

1. Maintenance Planning & Execution
   - Agree 'best practice' principles
   - Estimate all labour & material requirements
   - Plan & prioritise all work arising
   - Prioritise work arising/backlog task management
   - Clarify roles and responsibilities
   - Issue work into 'bite-size' chunks (~2hrs) with 'next job' visibility
   - Pilot the new ways of working
   - Determine & implement organisation structure
   - Roll out to all teams
2. Data Integrity
   To improve the reliability of planning data and garner actual work done:
   - Identify gaps/missing data/formatting errors
   - Identify inconsistencies in data structure
   - Develop realistic task times/resources
   - Implement data clean up plan
3. Subcontractor Management
   - Develop contractor selection process appropriate to the value/criticality of the task or service
   - Develop an effective contractor management process for all on-site work
   - Integrate supervisory roles & responsibilities
4. Project Management
   - Deliver programme objectives
   - Monitor milestones & deliverables
   - Mobilisation and communication

Client Benefits

The project team were able to deliver immediate improvements in efficiency during the pilot phase . . .

- £70k reduction in maintenance labour costs
- Work order backlog reduced by 50%
- Realistic plans based on realistic planning data (Task time assessments increased from 30% to 95%)
- Documented work order completions rose from 40% to 95%
- Ownership of plans by maintenance teams
- Increased utilisation of maintenance staff and subcontractors
- Increased flexibility to deal with emerging work
- Clearer roles & responsibilities with increased accountabilities and a focused way of working
- Managers trained in reliability techniques
- Improved subcontractors 'scope of work' definitions
- Competitive tendering process in place
- Improved co-ordination between sub contractors, maintenance and production

. . . with additional, and agreed, business benefits approaching **£250k** as the new ways of working are rolled out:

- Reductions in maintenance labour costs
- Reductions in subcontractor costs