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Management Consultants, Inc.

Waste

Quality Process Development and Training
Sustainability in Facilities Management, Operations and Maintenance



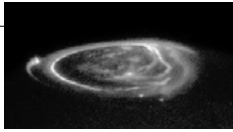
Sustainability5
Scope – Structure – Supervision – Systems – Synergy
Facilities Management Quality System

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Educational Initiative for Facilities Excellence (EdIFX)

Participants


- *Lapeer Community Schools, Lorraine Grinnell, Exec Director*
- *Wayne-Westland Community Schools, Tony Spisak, Exec Director*
- *Bay City Public Schools, Dave Mrozinski, Director*
- *Fraser Public Schools, John Thompson, Director*
- *Rochester Community Schools, John Stoner, Director*



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FM Quality Vision

Customer Service – Reliability – Quality – Cost – Sustainability



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Sustainability: the Hook, the Catch and the Commitment

Sustainability 


- Meeting the present's needs without depleting the future's resources
- The balance of economic, social and environmental interests = Triple bottom line
- Millennium Development Goals: water, energy, health, agriculture, biodiversity
- Minimizing environmental footprint (carbon) – Sustainability Systems Audit
- Collaborative strategic planning: "Yes" and "No"
- Business case analysis: costs, short-term impacts, long-term consequences, benefits

Entropy

- The degradation of matter and energy to a state of inert uniformity (Lowest Common Denominator)
- The measure of disorder or randomness or of the uncertainty of an outcome
- The inevitability of chaos

Yardsticks

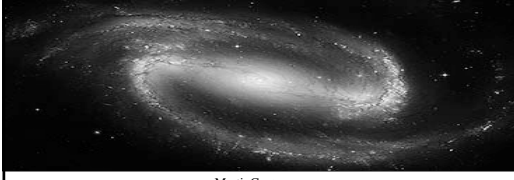
- "Cheap, good, fast" (pick two) becomes "cheap, good, fast, sustainable" (pick one)
- The end of random, reactive, legacy
- Data-driven process control – accountable for outcomes



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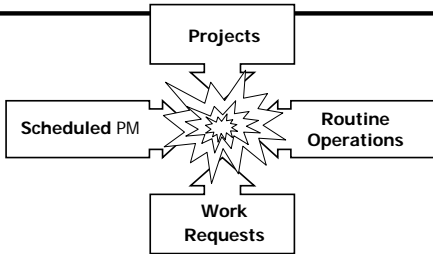
The Laws of Sustainability

- Nothing is new
- There are consequences
- Expand your perspective
- Raise your priorities
- Focus your choices
- Act with integrity




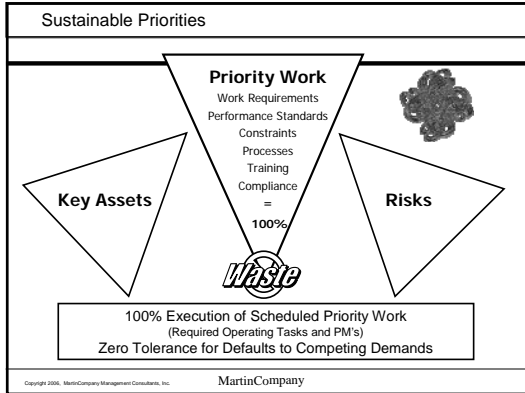
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Volatile Demands - Dynamic Priorities



\$ vs. Assets vs. Customers vs. Sustainability vs. Resources
Reactive – Random – Inconsistent – Negligent

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Sustainability5 Facility Management Quality Strategy

Scope – Requirements, Lean Priorities, Sustainability
 “Define the **WORK**”

Structure – Organization, Activities, Standards,
 “Design the **PLAN**”

Supervision – Direction, Coordination, Completion
 “Assert **LEADERSHIP**”

Systems – Information, CMMS, Material & Equipment, Training
 “Mobilize **RESOURCES**”

Synergy – Communication, Coordination, Cooperation
 “Promote **FLOW**”

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Sustainability5 FMQS Services – “Blueprint for Excellence”

Work Process Development for Computerized Maintenance Management (CMMS)
 prioritize lean workscopes and develop supervisory skills to fully exploit the potential of technology to improve performance, extend asset life and reduce costs.

5S Workplace Organization and Visual Management
 streamline workspaces and the selection, storage, and use of material and equipment.

Service Contractor Management
 transform vendors into continuous improvement partners

Customer Surveys and Communication
 focus opportunities for collaboration and mutual stewardship

Value Scorecard Reporting
 track lean, sustainable facility operations.

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Work Process Development for CMMS

Questions


- What are our performance improvement goals?
- How do we manage data: relevant, accurate, complete, current, accessible?
- How does CMMS change work planning? Work performance?
- How do we develop team readiness, acceptance, commitment, utilization?
- How does our relationship with administration and instructional staff change?

Actions

- Set priorities and target wins.
- Spell out personal responsibilities, expectations, boundaries, commitments.
- Plan, achieve, document and escalate wins – Points of Pride (continuous improvement)
- Report priorities, progress, wins and benefits to the district.

Yardsticks

- Increased Reliability – Δ Breakdowns, downtime, substandard operation
- Lower operating cost – Energy use, maintenance expense
- Asset life – extended PM intervals, fewer repairs, extended replacement schedules
- Educational readiness – access, reliability, suitability, quality, sustainability

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www.cmmscity.com


- Plan plan plan then prepare prepare prepare!
- **Software automates the underlying maintenance process** – it will not make a poor maintenance process better and may make it worse (faster and more efficiently).
- **Be a process fanatic** – improve underlying processes, then focus on technology solutions like CMMS or EAM (SchoolDude)
- **Enforce data accuracy** – asset hierarchy, operating requirements, work order history, failure coding, user training, dashboard reporting on Key Performance Indicators
- **Observe real people** – "see what jobs they are trying to get done... additional bells and whistles lead to numbing complexity... aim for simplicity and affordability."
The Economist, "Make It Simple"
Special Report: Survey of Information Technology, 2004

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Sustainability Gains

Work Process Development for CMMS

- Longer asset life
- Efficient operation
- Lean maintenance

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5S Workplace Organization and Visual Management

Questions


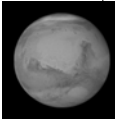
- What are facilities "work places"? Dedicated? Shared? Situational?
- How does the facilities staff prepare areas they perform work? Vacate?
- What are workplace standards (shops, cribs, closets, carts, kits, vehicles, etc.)?
- How are inventories planned, controlled, and scrubbed?
- How is equipment specified, acquired, maintained?
- How are plans, manuals, service records compiled and maintained?

Actions

- Define the "mess factor": operational, financial and service impacts and costs.
- Pick projects based on value of gains, not appearance. (Not about Martha Stewart).
- Apply controls, templates, pictures, guides. "Systematize"
- Communicate gains, foster professionalism.

Yardsticks

- Time savings: walk, wait, wonder, wander
- Fewer outages for critical and common; less excess & obsolete
- Improved worker appearance, customer respect


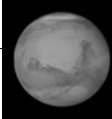



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Sustainability Gains

5S Workplace Organization & Visual Management

- Reduced consumption of parts & material
- Reduced loss of parts & material
- Efficient disposal (recovery) of excess & obsolete
- Efficient logistics

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Service Contractor Management

Questions


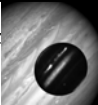
- What are contract's scope and performance improvement goals?
- How will contractor coordinate work tasks safety & security?
- What is plan for coordinating material & equipment?
- What is the interface/integration plan w/ CMMS (SchoolDude)?
- How is performance monitored, and how are defects flagged and corrected?

Actions

- Define work requirements and standards for bid package.
- Allow contractor (bidders) to define approach and resources to meet specs.
- Enforce reporting and continuous improvement processes.
- Assail defects, capture savings, reward gains.

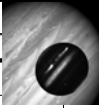
Yardsticks

- Year over year: efficiencies, reliability, savings
- Increased Reliability – Δ Breakdowns, downtime, substandard operation
- Lower operating cost – Energy use, maintenance expense
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Sustainability Gains

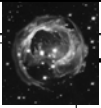


Service Contractor Management

- Longer asset life
- Efficient operation
- Lean maintenance
- Innovation in technologies and methods

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Customer Surveys and Communication



Questions


- Who can help us define our improvement goals?
- What survey information / data can help us meet our goals?
- How do we conduct surveys without diversion or disruption?
- How do we analyze survey information for continuous improvement?
- What feedback do we provide to respondents?

Actions

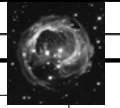
- Obtain the tools and skills, lay the groundwork, have a purpose and a plan.
- Prioritize high cost/high value ops – focus on standards and value.
- Sequence: survey-improve-survey-correct-survey (Plan Do Check Act).
- Conduct and compare customer surveys, management surveys, 3rd party audits.
- Report priorities, progress, wins and benefits to the respondents and the district.

Yardsticks

- Educational readiness – access, reliability, suitability, quality, sustainability
- Customer norms and expectations: tribal vs. digital gap = training opportunity
- Resource allocation – value of work, priorities


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Sustainability Gains



Customer Surveys & Communication

- Shared value – align expectations and priorities
- Focus, consistency, legitimacy
- Support initiatives, radical action
- Innovation in technologies and methods
- Triple balance sheet gains
Economic, social, environmental

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Value Scorecard Reporting

Questions


- How does facilities rescue the princess? *Slay the dragon?*
- How do we measure progress against our improvement goals?
- What are our opportunities to share our story? *Prep our audiences?*
- What scorecards help our staff make better choices?
- What standard reporting can be eliminated?
- What resources are at hand to prepare and convey our story?

Actions

- Target your audiences, tailor their stories, focus their punchlines.
- Format templates for each audience. *Footnote supporting data (Schoolkude).*
- Communicate value and gains. *Sell the Δ.*
- Use wall charts to keep focus (*visual management*). *Anything. Everywhere.*

Yardsticks


- Measure consequences & business value
- Help plan projects and process improvements vs. causes of waste
- Attract funding support and prove business value of facilities investments
- Educational readiness – access, reliability, suitability, quality, sustainability

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Sustainability Gains

Value Scorecard Reporting

- Shared value – align expectations and priorities
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Supervisory Excellence


Define: *Lean Scope*
Priorities, requirements, standards, processes
 80% = SCIP (Seat of the Pants)
 20% = FOP (Facility Operating Plan)

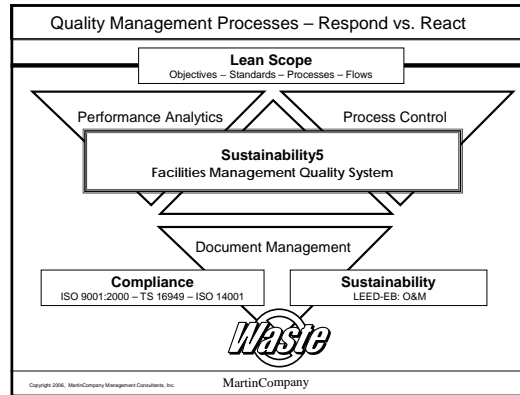
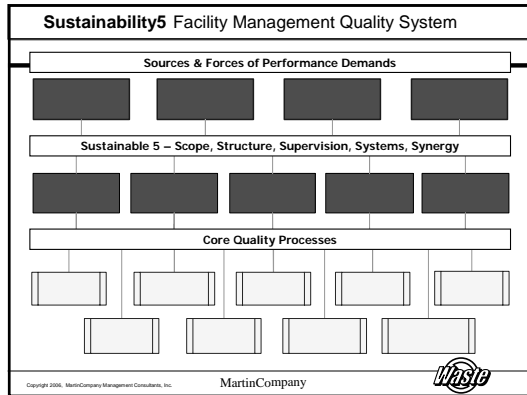
Direct: *Assign, instruct, evaluate, improve*
Plan, Do, Check, Act

Develop: *Standards, procedures, resources, technologies, training*
Standardized work, support systems for implementation

Discipline: *Standards, processes, systems, metrics*
Quality culture and commitment to continuous improvement.

Facility supervisors are firemen. This will never change.
Quality process control is their only option for fire management.

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Attack Total Waste*

Useless Work (Lean = Purpose)

- Make sure work is beneficial (not merely justifiable or habitual).

Excessive Work (Lean = Plan)

- Define requirements to avoid busywork, inflated standards, grandstanding.

Inefficient Labor (Lean = Skill)

- Direct people to plan, prepare, perform and polish every task.

Inefficient Material Handling (Lean = Resources)

- Order, ship, receive, store, maintain and dispose of material methodically.

Untimely Work (Lean = Access)

- Leverage the costs of urgent vs. convenient, vs. necessary.

Interference & Delay (Lean = Support)

- Plan cooperation TDAD (Task, Deliverable, Assignment, Due Date).

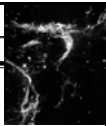
Corrective Work (Lean = Closure)

- Stop unnecessary work or repairs caused by prior failure (any failure!).

*Facility Operations + Downstream Impact on Business Operations

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Performance Metrics – Operating Analytics




Metrics

- Measure work, yield & cost
- Track current data vs. target, prior period, benchmark
- Help identify waste & prioritize improvement opportunities
- Help measure overall trends of operational improvements

Analytics

- Measure consequences & business value
- Calculate ROI for planned projects, process improvements
- Help plan projects and process improvements vs. causes of waste
- Attract funding support and prove business value of facilities investments



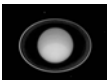
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Cultural Change: Think, Speak, Act

Old School – The Tribal Legacy
"Trust me." – "Been there, done that!" – "I'm on it." – "Good 'nuf." – "Never happen"

Change Strategies

*FOP vs. SOP
 (Facility Operating Plan vs. Seat of the Pants)
 Process & scope control vs. reactive
 Small group vs. individual
 Continuous flow vs. isolated tasks
 Standardized work vs. random effort
 Documentation vs. assertion*

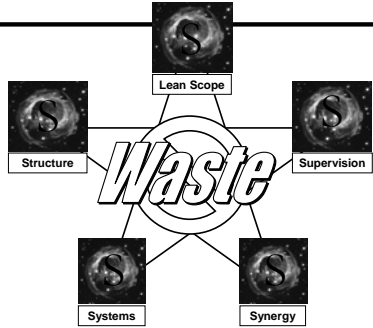


Sustainability5 FMQS

Scope Structure Supervision Systems Synergy
*Plan – Do – Check – Act
 Define – Direct – Develop – Discipline*

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Sustainability5 Facility Management Quality System



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