

IFMA Symposium

March 11, 2010

Beyond Survive – Tools to Thrive

- Smart Operations
 - Reducing Cost
 - Improving performance and customer satisfaction
 - Increasing Sustainability



Beyond Survive – Tools to Thrive

- Simple ideas that work for:
 - Large and small facilities
 - Owned and leased facilities
 - Complex and straight forward facilities

Smart Operations Tips From

FRED HUTCHINSON
CANCER RESEARCH CENTER
A LIFE OF SCIENCE

- Bob Cowan

BILL & MELINDA
GATES *foundation*

- Clark Rider

PHYSIO
CONTROL Lifesaving starts here.™

- James Johnson

Top Operational Opportunities

- Fred Hutchinson Cancer Research Center
 - Don't send your money overseas
 - Janitorial service levels
- Bill & Melinda Gates Foundation
 - Green Group – (employee participation)
 - Paper Calculator
 - Solid Waste Audit
- Physio - Control
 - Security – Untapped resource
 - Janitorial – Typically one of your largest expenses
 - Sustainability
 - Metrics

Fred Hutchinson Cancer Research Center

- World Famous Cancer Research Center
- 13 Buildings
 - 1.4 Million Square feet
 - 3,000 employees
 - 3 Nobel prize winners
- Sunny shores of South Lake Union



Bob's Ops (BO)



- Top 2
 - Don't Send Your Money Overseas
 - Service Levels on Janitorial Contracts



Don't Send Your Energy Money Overseas

- Don't Send it to Big Oil
- Don't Send it to Enron
- Don't even send it to PSE or SCL
 - They will even pay you not to
- Keep it in your hip pocket
 - So you can determine its Highest and best use



We reduced energy (1 Building) by 20% in one year

- We've done over 200 Energy Conservation projects at the Hutch
 - But that's not how we did this 20% reduction
 - There weren't any magic beans on this one
- We used four simple tools you may already have
- We did it the old fashion way
 - We examined how we were actually operating the building
 - And then we adjusted it to how we should have been operating the building

Simple Tools (All Free)

- Energy Philosophy (Free)
- Seattle MeterWatch (Free program from Seattle City Light)
 - Told us when the building was on and when it was off
- Elevator Traffic Surveys (Free program from Elevator Co)
 - Told us when people came in and when they left
 - And when they weren't there, like on weekends
- Communications (Free)
 - We told building occupants what we were doing
 - So they knew and could do their part
 - Like using the overrides

Energy Philosophy

- Deliver the Right Amount of Energy
- Deliver the Energy Just in Time
- Deliver the Energy as Efficiently as Possible

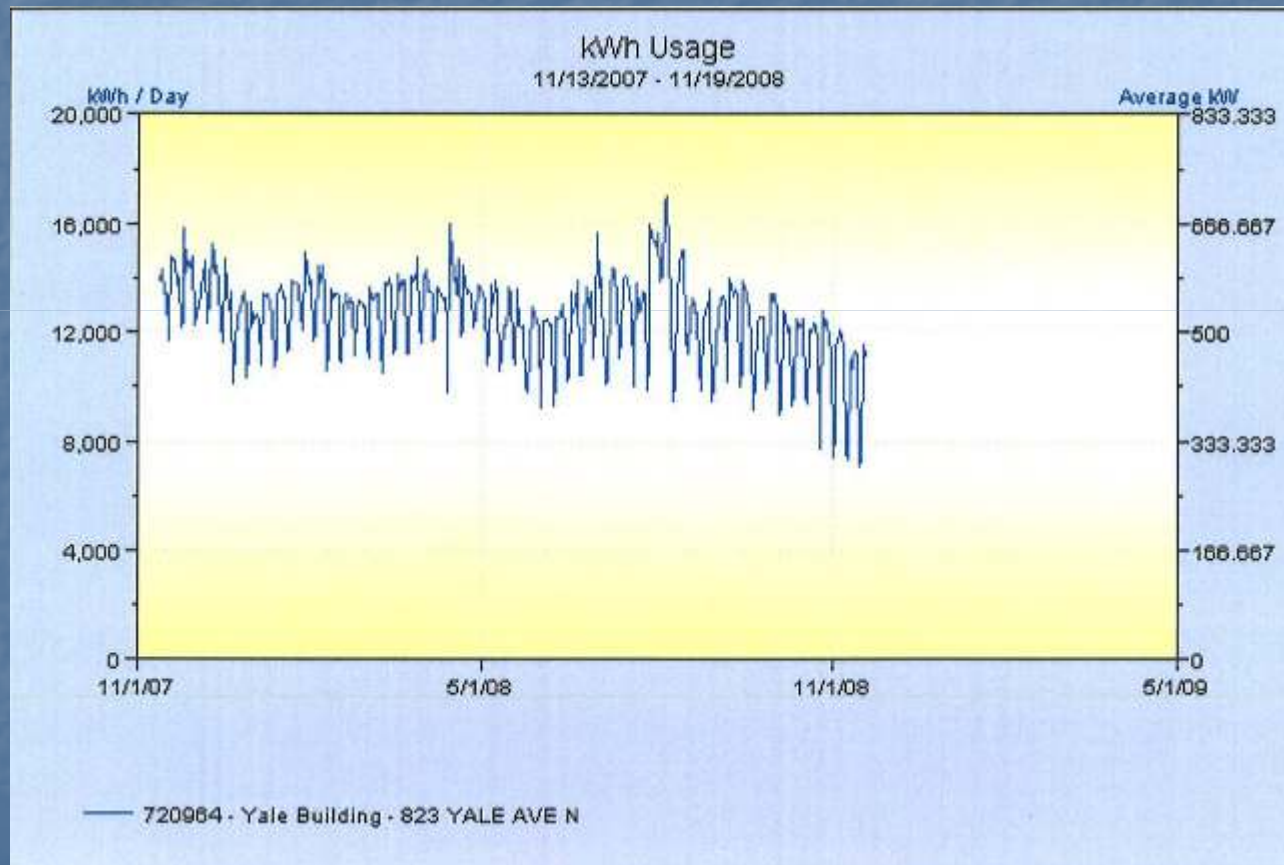
Energy Philosophy

- Deliver the Right Amount of Energy
 - Set Points
 - Temp obvious
 - % of outside air, Static pressure in the ducts, lighting levels, Water temp
- Deliver the Energy Just in Time
 - When do you turn on/off or reduce
 - Fans, lights, heating, cooling, Air Change rate
- Deliver the Energy as Efficiently as Possible
 - Capital Projects
 - VFD, Energy Efficient Chillers, T5's and the T8's

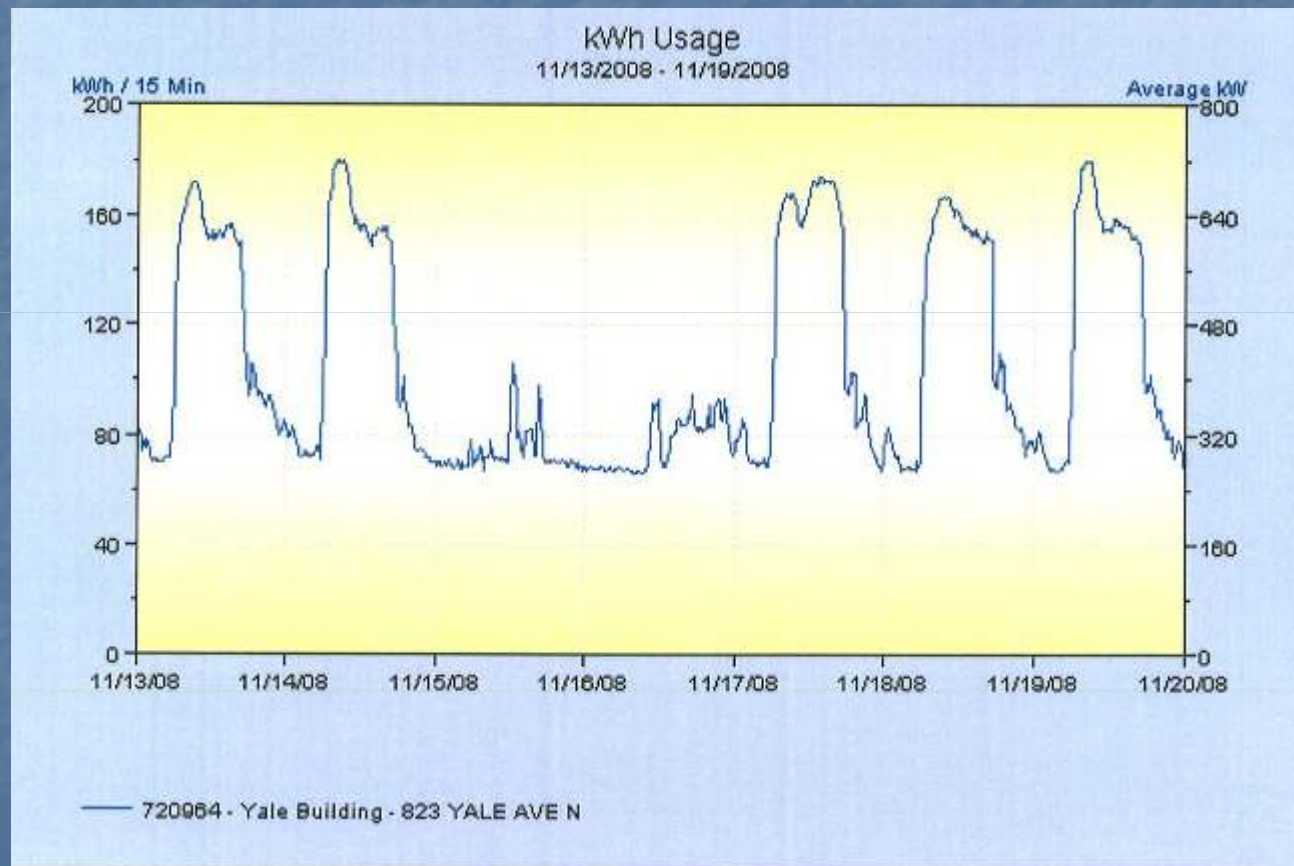
Seattle MeterWatch

- Fantastic Free tool
 - Seattle City Light
- Let's you look at electricity consumption
 - Every 15 minutes
- Lets you look at cost
- Let's you look at Outside Air temp
- Almost real time
 - 24 hr delay

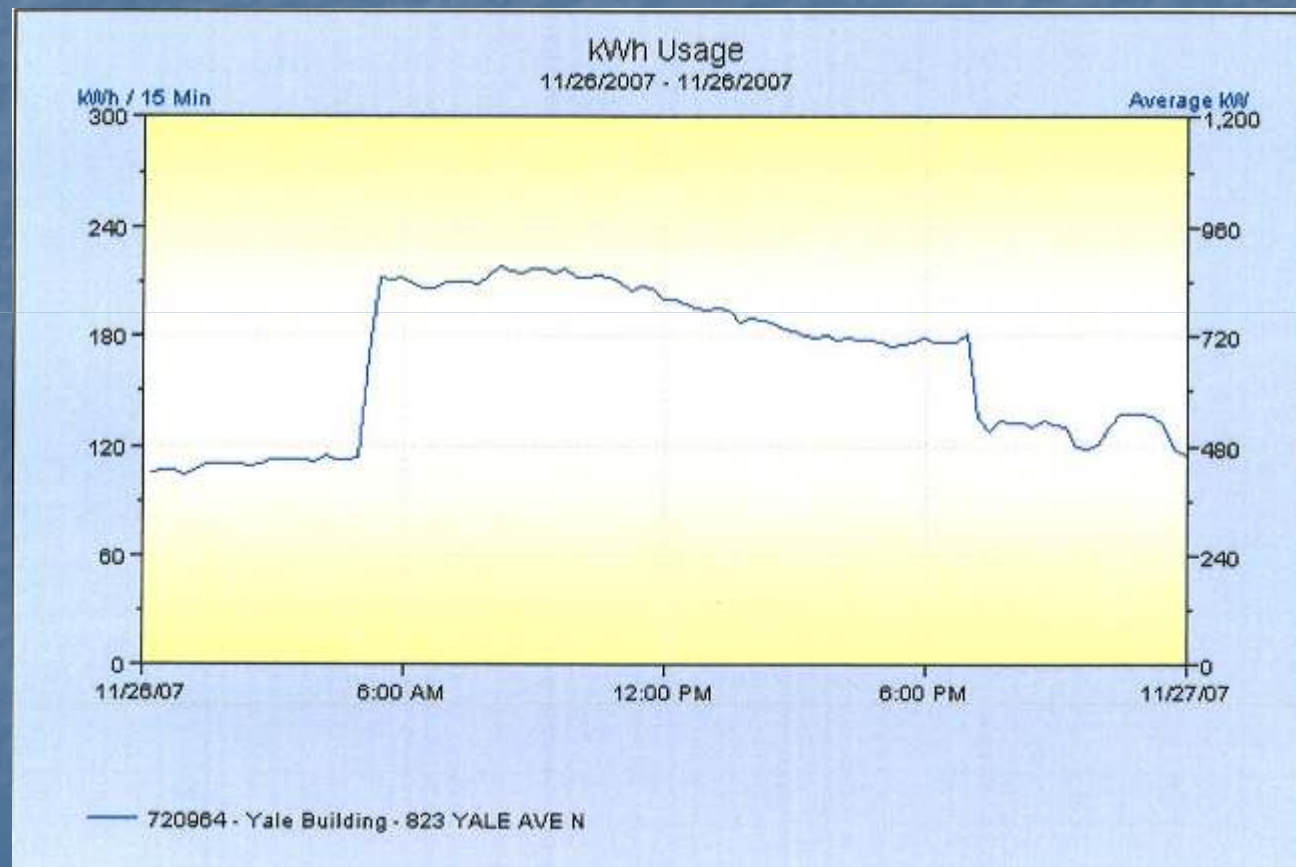
Year



Week



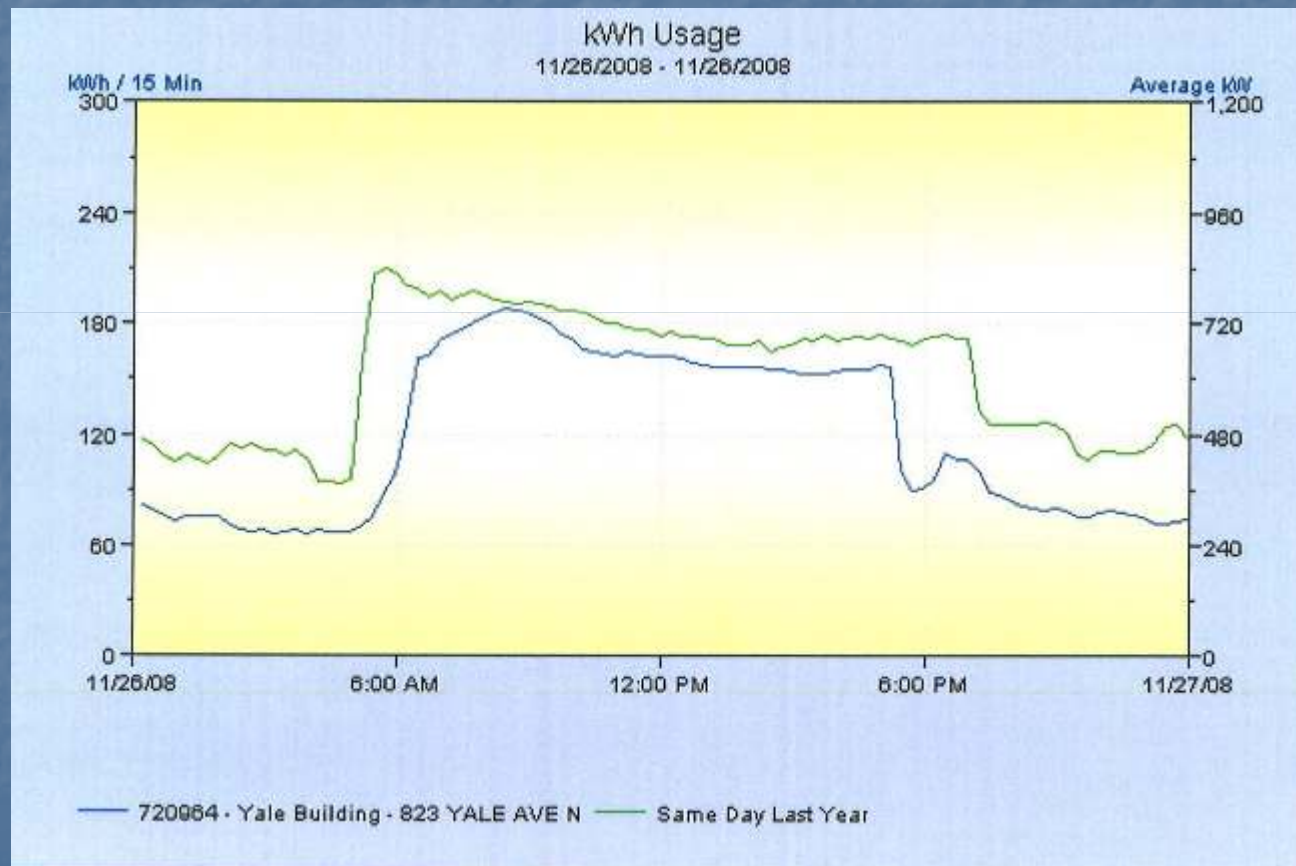
Day



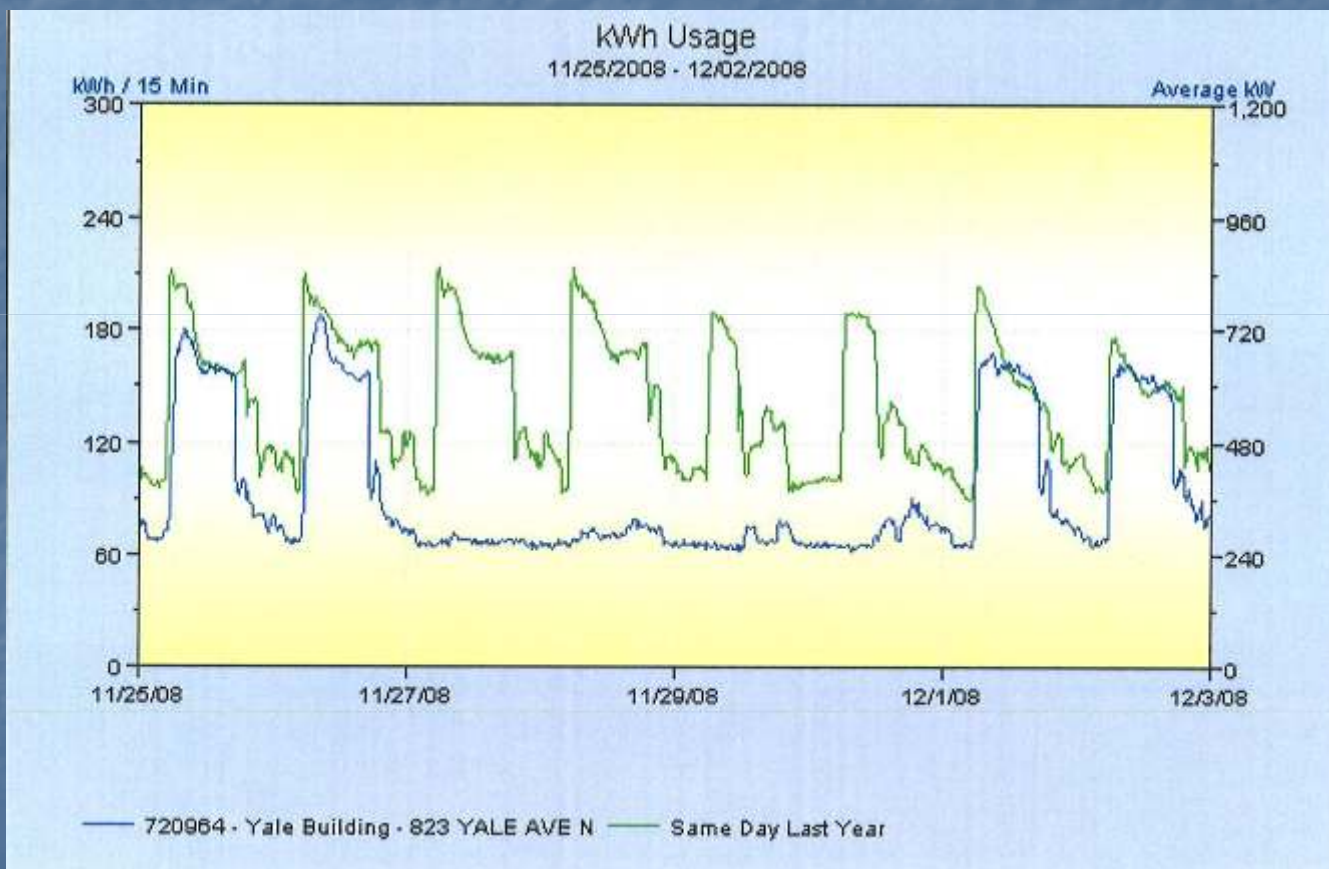
Here's our traffic Survey

IMS Intelligent Management System		C bldg 6,7		October 30, 2008		11:01:41PM			
UP/DN CALL SUMMARY				Start Time	10/30/2008 3:48:30PM				
15 MINUTE INTERVALS				Stop Time	10/30/2008 9:03:30PM				
Time Slot	Time In Seconds						Longest	Avg Wait	Total Calls
	< 15	< 30	< 45	< 60	< 120	120 +			
Dn 10/30/2008 3:48:30PM	4	0	0	0	0	0	10	6.8	4
Up 10/30/2008 3:48:30PM	1	1	0	0	0	0	21	10.5	2
Dn 10/30/2008 4:03:30PM	1	1	0	0	0	0	18	12.0	2
Up 10/30/2008 4:03:30PM	1	0	0	0	0	0	0	0.0	1
Dn 10/30/2008 4:18:30PM	2	2	0	0	0	0	24	11.5	4
Up 10/30/2008 4:18:30PM	3	0	0	0	0	0	5	1.7	3
Dn 10/30/2008 4:33:30PM	3	1	1	0	0	0	34	15.6	5
Up 10/30/2008 4:33:30PM	2	0	0	0	0	0	12	8.5	2
Dn 10/30/2008 4:48:30PM	4	5	0	1	2	0	69	25.6	12
Up 10/30/2008 4:48:30PM	2	1	0	0	2	0	105	43.6	5
Dn 10/30/2008 5:03:30PM	5	3	1	0	0	0	33	15.4	9
Up 10/30/2008 5:03:30PM	1	0	0	1	0	0	47	23.5	2
Dn 10/30/2008 5:18:30PM	3	2	0	0	0	0	21	9.4	5
Up 10/30/2008 5:18:30PM	1	0	0	0	0	0	0	0.0	1
Dn 10/30/2008 5:33:30PM	3	4	0	0	1	0	60	19.4	8
Up 10/30/2008 5:33:30PM	3	0	0	0	0	0	13	6.7	3
Dn 10/30/2008 5:48:30PM	0	2	0	0	0	0	16	16.0	2
Up 10/30/2008 5:48:30PM	0	0	0	0	0	0	0	0.0	0
Dn 10/30/2008 6:03:30PM	2	1	1	0	0	0	39	18.0	4
Up 10/30/2008 6:03:30PM	1	0	1	0	0	0	32	19.0	2
Dn 10/30/2008 6:18:30PM	0	1	0	0	0	0	15	15.0	1
Up 10/30/2008 6:18:30PM	0	0	0	0	0	0	0	0.0	0
Dn 10/30/2008 6:33:30PM	1	1	0	0	0	0	15	7.5	2
Up 10/30/2008 6:33:30PM	2	0	0	0	0	0	8	7.5	2
Dn 10/30/2008 6:48:30PM	1	0	0	0	0	0	10	10.0	1
Up 10/30/2008 6:48:30PM	0	0	0	0	0	0	0	0.0	0
Dn 10/30/2008 7:03:30PM	3	1	0	0	0	0	21	10.0	4
Up 10/30/2008 7:03:30PM	0	0	0	0	0	0	0	0.0	0
Dn 10/30/2008 7:18:30PM	0	1	0	0	0	0	16	16.0	1
Up 10/30/2008 7:18:30PM	1	0	0	0	0	0	6	6.0	1
Dn 10/30/2008 7:33:30PM	2	1	0	0	0	0	16	10.7	3
Up 10/30/2008 7:33:30PM	0	0	0	0	0	0	0	0.0	0
Dn 10/30/2008 7:48:30PM	0	0	0	0	0	0	0	0.0	0
Up 10/30/2008 7:48:30PM	0	0	0	0	0	0	0	0.0	0
Dn 10/30/2008 8:03:30PM	0	1	0	0	0	0	16	16.0	1
Up 10/30/2008 8:03:30PM	0	0	0	1	0	0	54	54.0	1
Dn 10/30/2008 8:18:30PM	3	0	0	0	0	0	11	5.7	3
Up 10/30/2008 8:18:30PM	1	0	0	0	0	0	6	6.0	1
Dn 10/30/2008 8:33:30PM	1	0	0	0	0	0	1	1.0	1
Up 10/30/2008 8:33:30PM	0	0	0	0	0	0	0	0.0	0
Dn 10/30/2008 8:48:30PM	2	0	0	0	0	0	6	5.5	2
Up 10/30/2008 8:48:30PM	3	1	0	0	0	0	21	9.3	4

We put them together

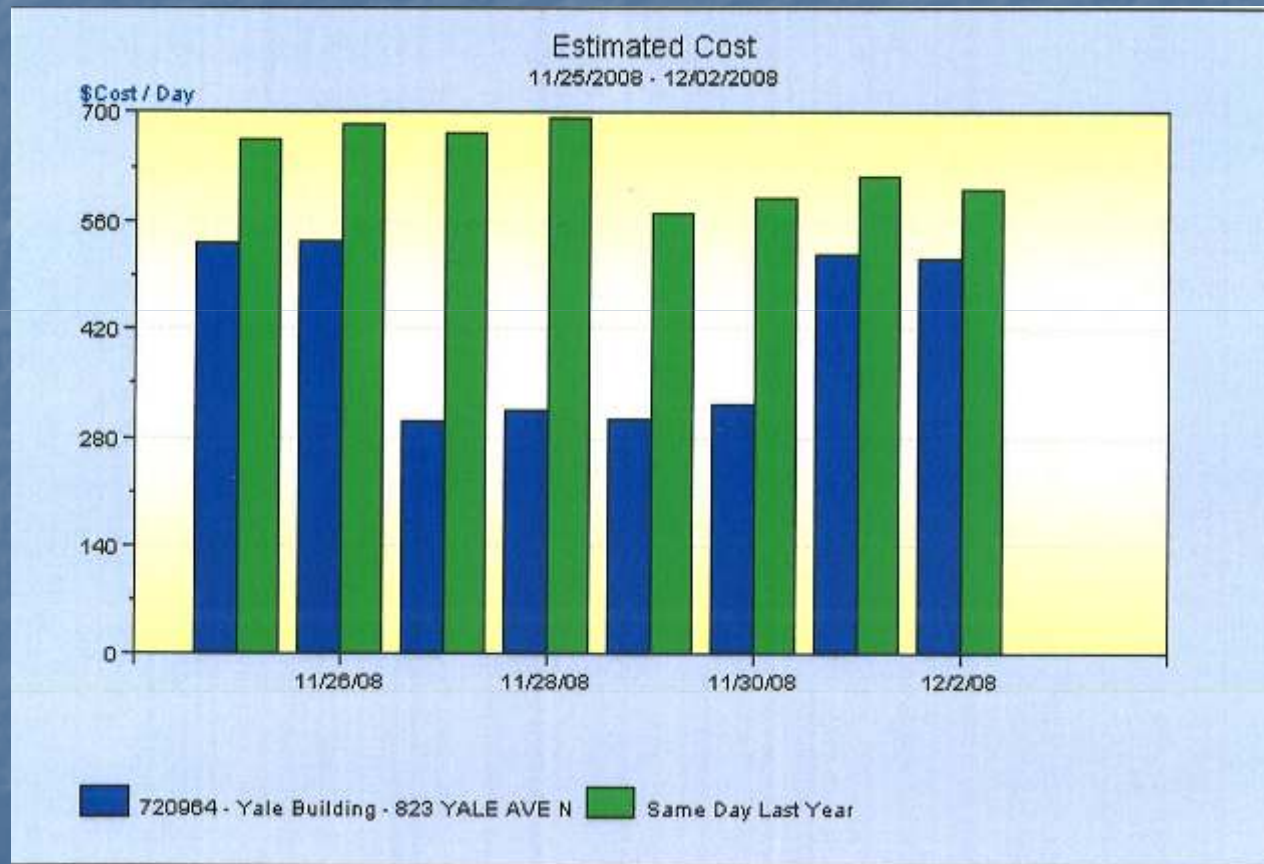


We looked at Weekends & Holidays

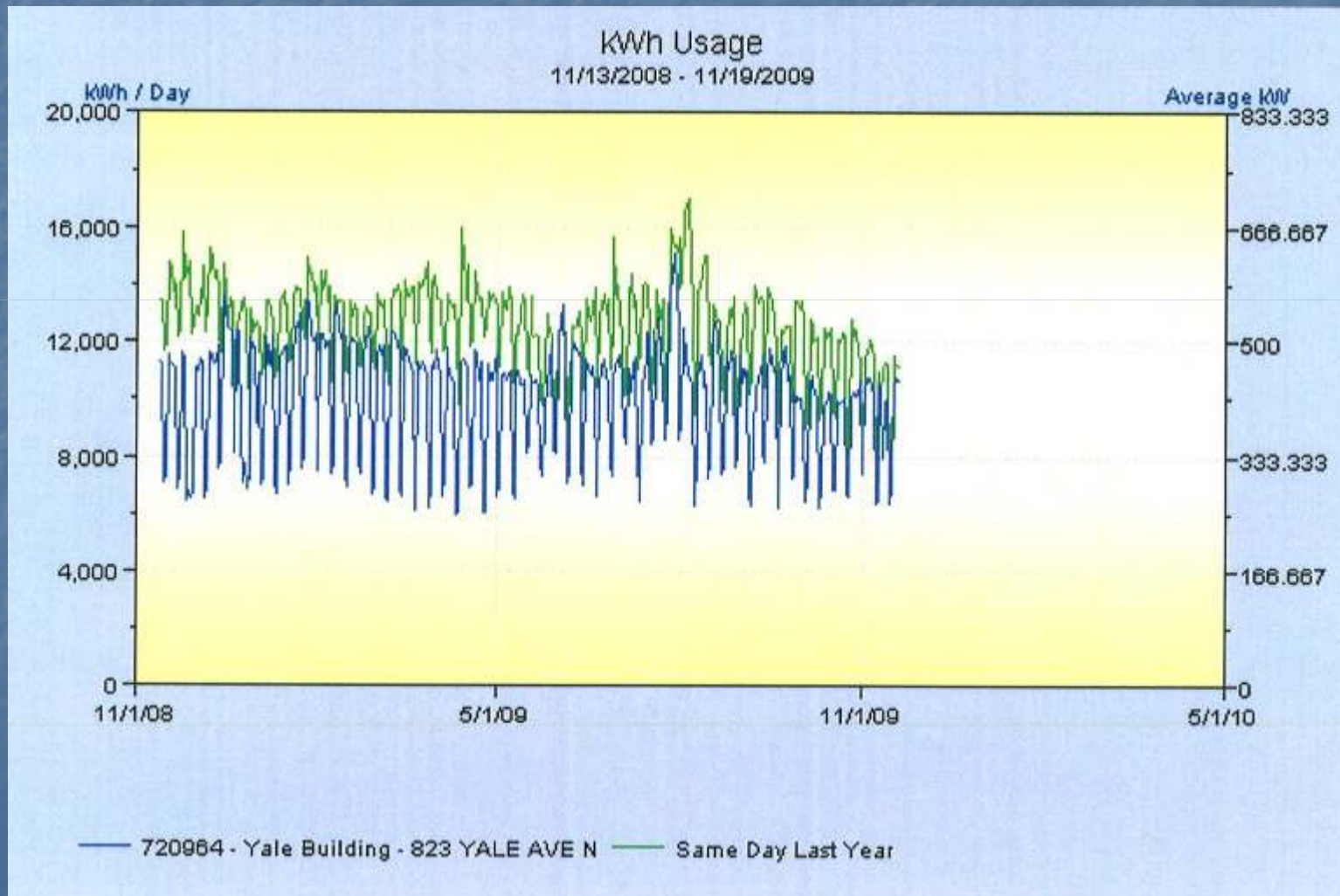


We Save a Lot of Money

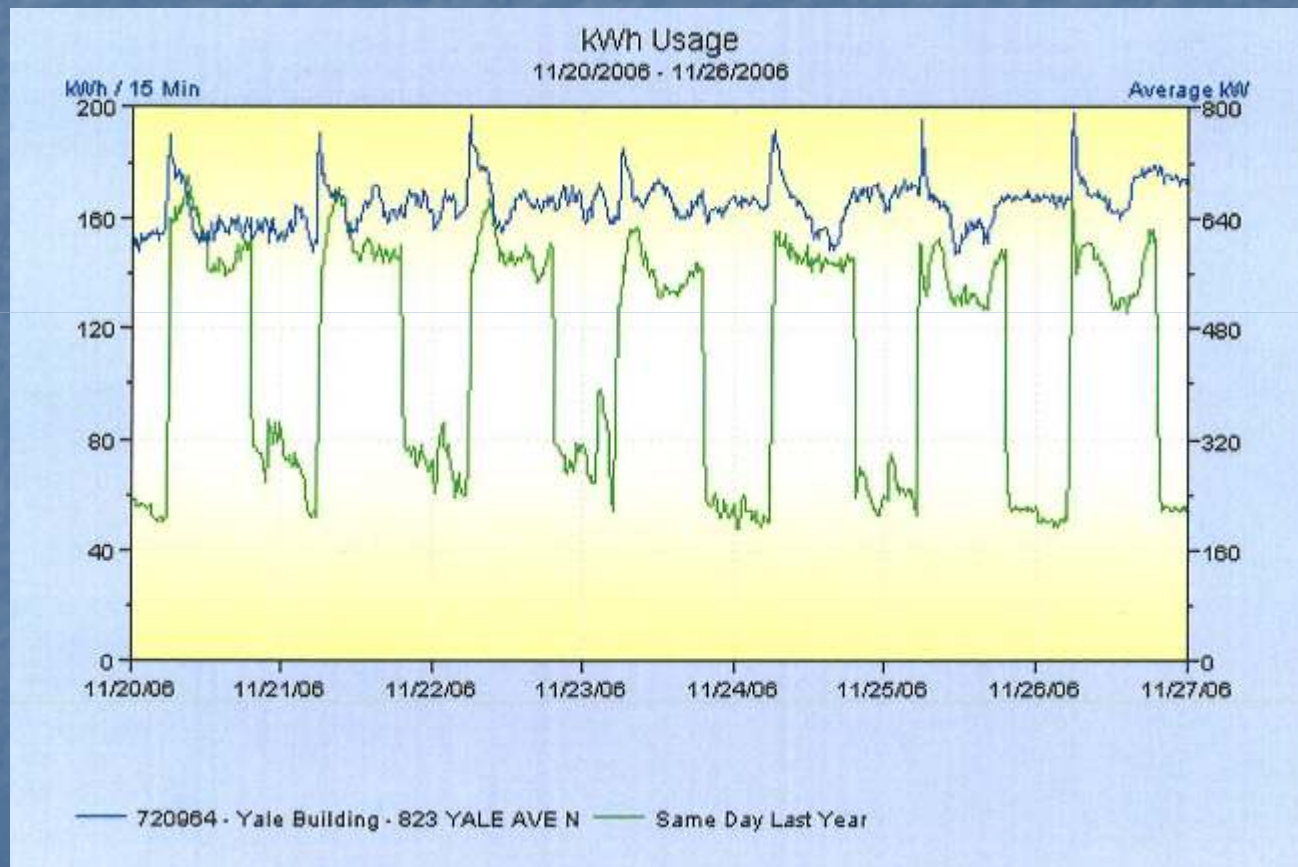
06-\$268,000 to 09-\$187,000



We go from this to this in one year 20% reduction



Helps detects problems also



Janitorial Service Levels

- Counting inflation reduced janitorial cost over 50%
 - 2005 - \$1,500,667
 - 2009 - \$1,055,912
 - 2010 - \$ 800,000 (projected)

Three things

- Reduced Service levels
 - Vacuuming went from daily to once per week
 - Except Public Spaces (conference rooms)
 - Trash pick up went from daily to twice per week
 - Central Composting
 - Its good to get up out of your chair once in a while
 - Central Composting & Kitchen Composting = 27% reduction in garbage cost
- Improved products which allowed us to reduce manpower
 - Better wax
 - Went from Quarterly to Twice a year
- Rebid Contract
 - Same contractor won
 - But he sharpened his pencil a little

BILL & MELINDA
GATES *foundation*

- Seattle based philanthropy with 1,000+ employees and offices in five cities
- Seattle facilities include:
 - 5 leased buildings
 - 4 separate building owners
 - 342,783 - Total square feet

Smart Operations

Three simple tools used to increase operational efficiency at the foundation

- The Green Group



- Paper Calculator



- Solid Waste Audit



Tool #1 – The Green Group



■ Action

- Create a Green Group - A team of employees to help lead sustainability efforts

■ Benefits

- Grassroots efforts raise employee involvement and create a sense of ownership
- Allows FM team to get the pulse of the organization
- Raises new ideas
- Aids in getting management support for initiatives
- Provides manpower and the power of example

Tool #1 – The Green Group



■ **Payoff**

Employee support on sustainability initiatives led to the creation of:

- A Paper Use Reduction Initiative and Paper Use Policy
- A composting program
- A Resource Stewardship program encompassing:
 - Transportation
 - Waste Management
 - Materials usage
 - Energy usage

Tool #2 - Paper Calculator



■ Action

- Measure your paper usage
 - (*go to PaperCalculator.org*)

■ Benefits

- It's easy!
- Attention grabber
 - 2007 – our average employee was using over 20 reams, or 10,000 sheets of paper
- Data facilitates future updates and aids in creating paper use policies



Tool #2 - Paper Calculator



- Payoffs

Data from the paper calculator highlighted the urgent need for creating a Paper Use Policy

Objective: Increase stewardship of foundation resources and the environment by:

- Reducing paper products consumption
- Converting to environmentally-friendly paper products where possible
- Maximizing paper reuse and recycling
- Partnering with IT to implement a printer policy which supports these goals

Tool #2 - Paper Calculator



■ Results

- Costs down significantly, even with headcount doubling and a switch to more expensive 100% recycled paper!
- \$30,000 in annual savings from 2007 paper use rate of 20 reams per employee
- Hundreds of trees saved! At 2007 usage rates, we would have consumed 9,000 more reams of paper in 2009

	2007	2008	2009
Avg Headcount	510	931	1,094
Avg Reams/user	20.70	17.70	12.50
Total Reams	10,597	16,531	13,662
Total cost	\$27,581.19	\$54,105.16	\$46,312.72

Tool #3 – Solid Waste Audit



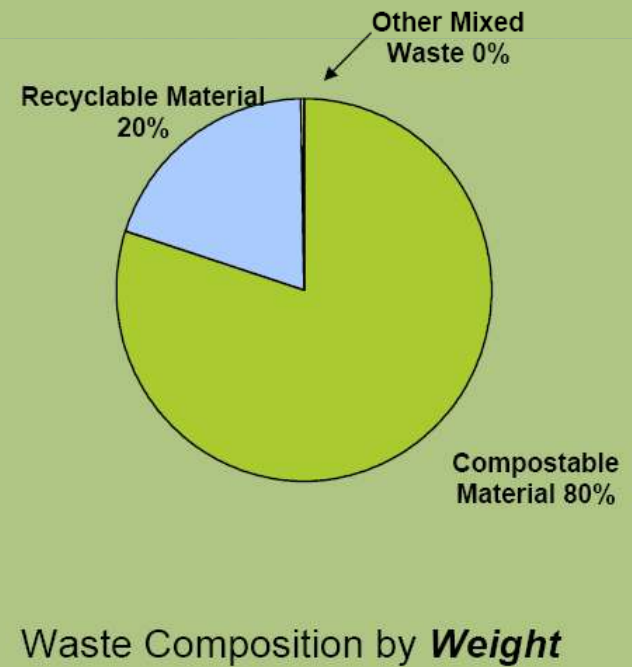
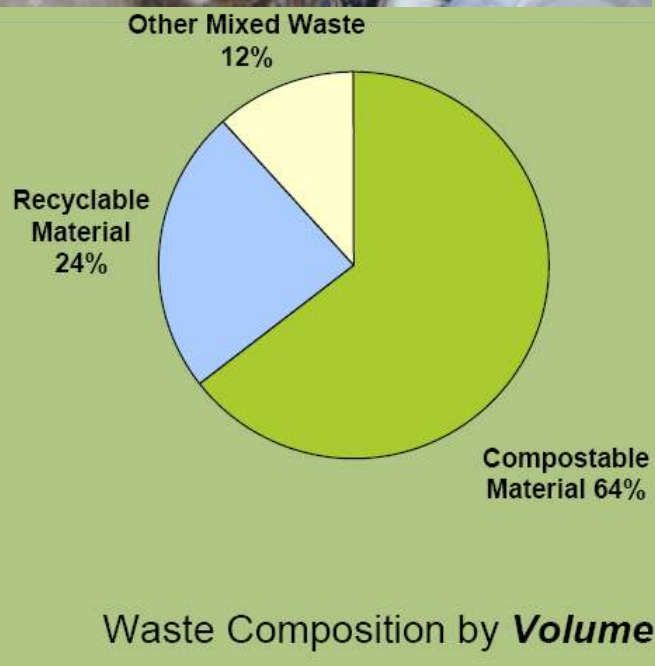
■ Action

- Perform a solid waste audit
 - A measure of the volume and weight of your waste (trash, recycling and compostables)

■ Benefits

- It's free!
 - Resource Ventures- A program available from Seattle Public Utilities
- Attention Grabber – use photos to educate employees on proper waste management
- Great precursor to a full Carbon Footprint

Solid Waste Audit 2007 findings



Tool #3 – Solid Waste Audit



■ Payoffs

- Awareness of and improvement in the proper sorting of waste
- Data supported changes in waste management collection procedures, leading to reduced costs and waste
- Introduction of composting program, resulting in:
 - Reduced frequency of trash pick ups and size of dumpsters
 - Reduced volume of waste going to the landfill

Resources

Seattle City Light and Seattle Public Utilities – Custom Programs

Resource Venture (SPU) – resourceventure.org

Cascade Green Building Chapter - cascadiagbc.org

Seattle Climate Partnership - seattleclimatepartnership.org

Network for Business Innovation and Sustainability – nbis.org

IFMA Webinars and Conferences – *Sustainable FM – Greening your Facility*

Environmental Defense Fund – PaperCalculator.org

Physio-Control

World leader in Emergency Care and Defibrillation technology

- Our Market: Hospitals, Emergency Medical Services, Military
 - Defibrillators/Monitors, AED's
 - CPR

Corporate office - Redmond WA

- Owner occupied facility
- 300,000 Square feet
- Over 1200 Team Members globally
 - ~ 800 are in Redmond, WA
- Two older facilities (1974 & 1980)
- Extensive regulatory burdens
- Over \$450 million in annual revenues



Operational Considerations

Janitorial – typically large expense

- Contract structures – Cost Plus
 - Do you know your providers profit and overhead?
- Performance Scorecard
- Compactors vs. Open containers
 - Savings - Trip charge
 - Ratio = 3 / 1
 - Use the gauge vs. frequency



Operational Considerations

Security – typically untapped resource

- Energy savings – Empower them
- After hours - building audits
- Whiteboard stocking
- Inspections/Reports
 - Property/Risk
 - Eye Wash
 - Fire Extinguisher's
 - Other??



Sustainability

Energy management

- Lighting retrofits, Occ. Sensors, Exit lights
 - Savings – not only energy - lamps, labor
 - Payback – 1.5 yr.
- Enernoc Pilot – load shedding –
 - Set up cost \$0 - \$2,000 (our cost was \$0)
 - Net up to \$5,000 per year – program limit
- Work schedules- don't assume you know
 - Security system – look at access times

Sustainability (cont.)

Manufacturing

- Air Compressor – \$15,164
 - Downsized from 25hp to 20hp
 - Increased unload set point to 145psi
 - Decreased system pressure to 90psi
 - Resulting in increased off/unload time
 - PSE rebate of 70% = \$10,615
 - Life Cycle Opportunity
- Square Foot savings – reduced bench sizes
- LED Lighting options - ~100 workstations

Sustainability (cont.)

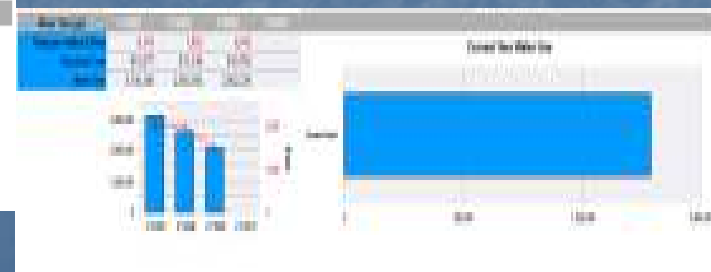
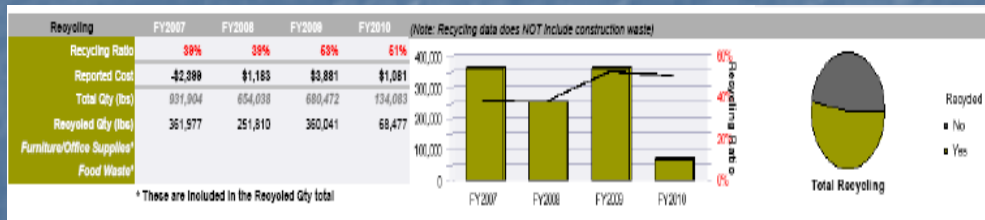
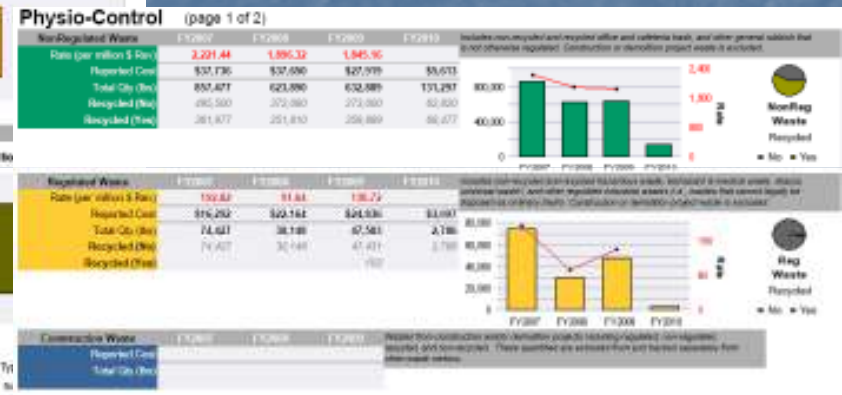
- Implemented Compostables Program
 - Diverted 50 ton from landfill annually
 - Savings annually = \$1500 (and year 2 will be more)
 - Implementation cost = \$1125
 - Payback = ~ 9 months

Metrics – are they working for you?

- What gets visibility and measured gets improvement/attention...Done!
- Environment Health Safety
 - Triple Bottom Line – Environmental, Social, Financial
 - Success = Marketing Conveys Sustainability message

Metrics – (cont.)

Corporate Responsibility Magazine lists Medtronic among 2010's 100 Best Corporate Citizens



Metrics – Continuous Improvement

People do what you inspect, not what you expect !

Janitorial Performance Scorecard - Physio-Control

Area: Manufacturing Floor

Auditor(s): James Johnson

Date: 11/16/09

SORT = 10 points

Are cleaning products stored in appropriate locations? (Chemicals above eye level?)

1	2	3	4	5	Score
	x				2.0
x					1.0

Are items stored in appropriate locations within the Storage room area?

SET IN ORDER = 15 points

Are cabinets and other storage areas labeled and defined properly?

1	2	3	4	5	Score
	x				2.0
			x		4.0
			x		4.0

Are tools, clip boards, MSDS book/sheets, and paperwork in their storage location identified when not in use?

Are Waste/Recycle carts/containers in their assigned locations?

SHINE = 60 points

Are the floors in the **Production** areas clean, or is there evidence of dust, dirt, marks, etc.?

1	2	3	4	5	Score
		x			3.0
			x		4.0
		x			3.0
			x		4.0
			x		4.0
		x			3.0
				x	5.0
	x				2.0
				x	2.0
				x	2.0
				x	5.0

Are the floors in the **Lab** areas clean, or is there evidence of dust, dirt, marks, etc.?

Are the floors in the **Breakroom** areas clean, or is there evidence of dust, dirt, marks, etc.?

Are the floors in the **Office, Cube and Conference room** areas clean, or is there evidence of dust, dirt, marks, etc.?

Are the floors in the **Shipping** areas and **Delivery dock** clean, or is there evidence of dust, dirt, marks, etc.?

Are the **Restrooms** clean, or is there evidence of dust, dirt, marks, etc.?

Are the restrooms adequately stocked with supplies (soap, paper towels, seat liners)

Are walls, doors and windows in all areas of production clean and free of debris

Are the Janitorial specific machines/equipment (Waste/Recycle, Baler, Scrubbers, tools) clean and maintained?

Is cardboard broken down, trash in place (not overflowing), and staged in appropriate location?

Are storerooms clean and free from debris?

Is there evidence that trash and recycled items are being emptied on a regular basis?

STANDARDIZE = 10 points

Are there zones and work instructions available in work areas or storage areas that outline routine activities?

Health and Safety: Is there evidence that HAZCOM training has occurred and is being maintain within work areas. Items properly labeled?

SUSTAIN = 5 points

Is there evidence that 5S activities are being performed regularly?

1	2	3	4	5	Score
x					1.0
x					1.0
x					

Scores

SORT	3.0
SET IN ORDER	2.0
SHINE	36.0
STANDARDIZE	2.0
SUSTAIN	0.0

Total Score 43.0

Metrics - Continuous Improvement

Janitorial Performance Scorecard - Physio-Control

Area: Manufacturing Floor

Auditor(s): James Johnson

Date: 2-22-2010

SORT = 10 points

Are cleaning products stored in appropriate locations? (Chemicals below eye level?)

1	2	3	4	5	Score
			x		4.0
		x			3.0

Are items stored in appropriate locations within the Storage room area?

SET IN ORDER = 15 points

Are cabinets and other storage areas labeled and defined properly?

1	2	3	4	5	Score
x					1.0
		x			3.0
				x	5.0

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			x		4.0
			x		4.0
		x			3.0
				x	5.0
				x	5.0
		x			3.0
				5	5.0
			x		4.0
		x			3.0
				x	5.0
			x		4.0
				x	5.0

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		x			3.0

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SUSTAIN = 5 points

Is there evidence that 5S activities are being performed regularly?

1	2	3	4	5	Score
					3.0

Scores	
SORT	7.0
SET IN ORDER	1.0
SHINE	45.0
STANDARDIZE	7.0
SUSTAIN	3.0

Total Score 63.0

Top Operational Opportunities

- Fred Hutchinson Cancer Research Center
 - Don't send your money overseas
 - Janitorial service levels
- Bill & Melinda Gates Foundation
 - Paper Calculator
 - Green Group – (employee participation)
 - Solid Waste Audit
- Physio - Control
 - Security – Untapped resource
 - Janitorial – Typically one of your largest expenses
 - Sustainability
 - Metrics

Q & A

Thanks for attending!