



Connecting Quality & Profitability

What are the true costs of waste, errors and customer complaints?

Tuesday, October 10, 2017

Housekeeping

Welcome

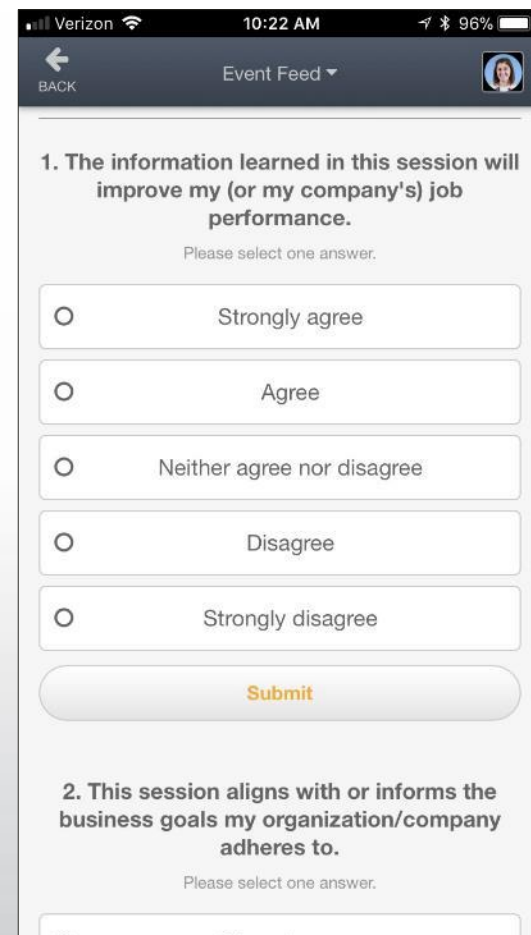
- Safety
- Bathrooms
- Cell phones



Session Survey Instructions

At the end of each session, you will be given 5 minutes to complete the session survey.

1. Open the “HEF2017” app
2. Navigate to “Agenda” and select the session
3. Scroll down to “Session Feedback”
4. For each question, select answer and hit “Submit”
5. Show completed survey to BetterBuiltNW rep to earn points
6. Prizes awarded Friday to the top point earners
 - See “Challenge” section in the app for activities
7. Assistance available at the BetterBuiltNW table



The screenshot shows a mobile app interface for a survey. At the top, the status bar shows Verizon, 10:22 AM, and 96% battery. The app header includes a 'BACK' button, 'Event Feed', and a user profile icon. The main content area displays a survey question: '1. The information learned in this session will improve my (or my company's) job performance.' Below the question is the instruction 'Please select one answer.' and five radio button options: 'Strongly agree', 'Agree', 'Neither agree nor disagree', 'Disagree', and 'Strongly disagree'. A 'Submit' button is located below the options. The second question is partially visible at the bottom: '2. This session aligns with or informs the business goals my organization/company adheres to.' with the instruction 'Please select one answer.'

What percentage of most operating budgets would you guess are waste?



Agenda

- Common language
- What is the cost of poor quality?
- Establishing a culture of quality
- Closing and Evaluations

Objectives

- Establish a definition of quality
- Calculate the cost of waste, defects, etc.
- List the benefits of a quality culture
- Document potential next steps

Common Language

LOYALTY

QUALITY

PURPOSE

VALUE

PREVENTION

WASTE

ZERO DEFECTS

WANTS

FEAR

QUALITY

Doing work to
agreed upon
requirements

Either you did or
you did not

WASTE

Anything that consumes resources and does not add value to the end product





Areas of Waste

1. Rework
2. Waiting
3. Transportation
4. Variation
5. Inventory

Cost of Poor Quality



Delays/Increased
Cycle Time



Waste



Testing/
Re-testing



Inspection/
Re-inspection



Rework

The obvious and “visible” costs are a small portion of the overall cost

Cost of Poor Quality

**INSPECTION/
RE-INSPECTION**

REWORK

WASTE

**DELAYS/
INCREASED CYCLE TIME**

**TESTING/
RE-TESTING**

GREATER RISK

**EXCESSIVE
OVERTIME**

VARIATION

**LOST MARKET
SHARE**

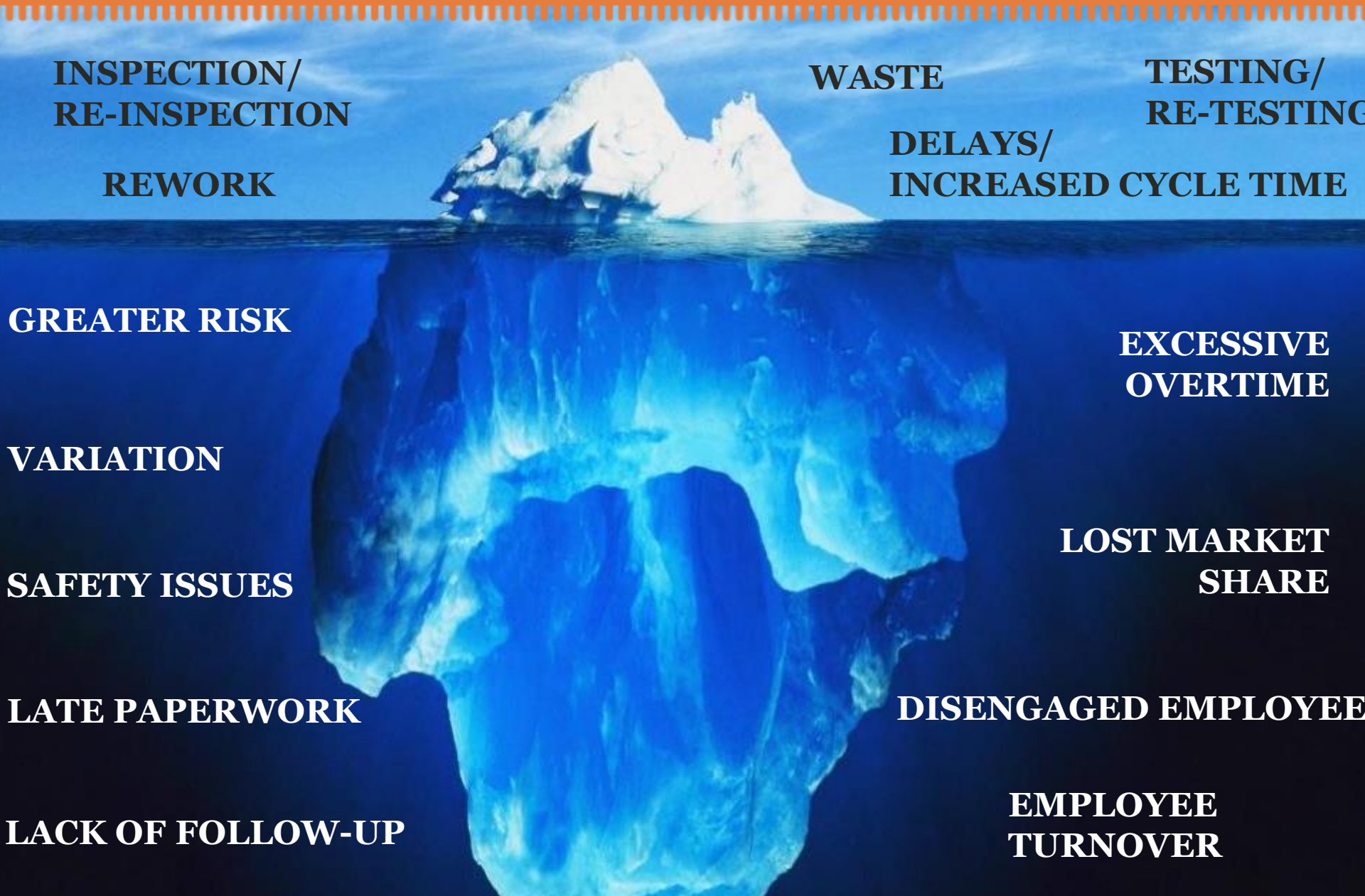
SAFETY ISSUES

LATE PAPERWORK

DISENGAGED EMPLOYEE

LACK OF FOLLOW-UP

**EMPLOYEE
TURNOVER**



What is the cost of a failed inspection?



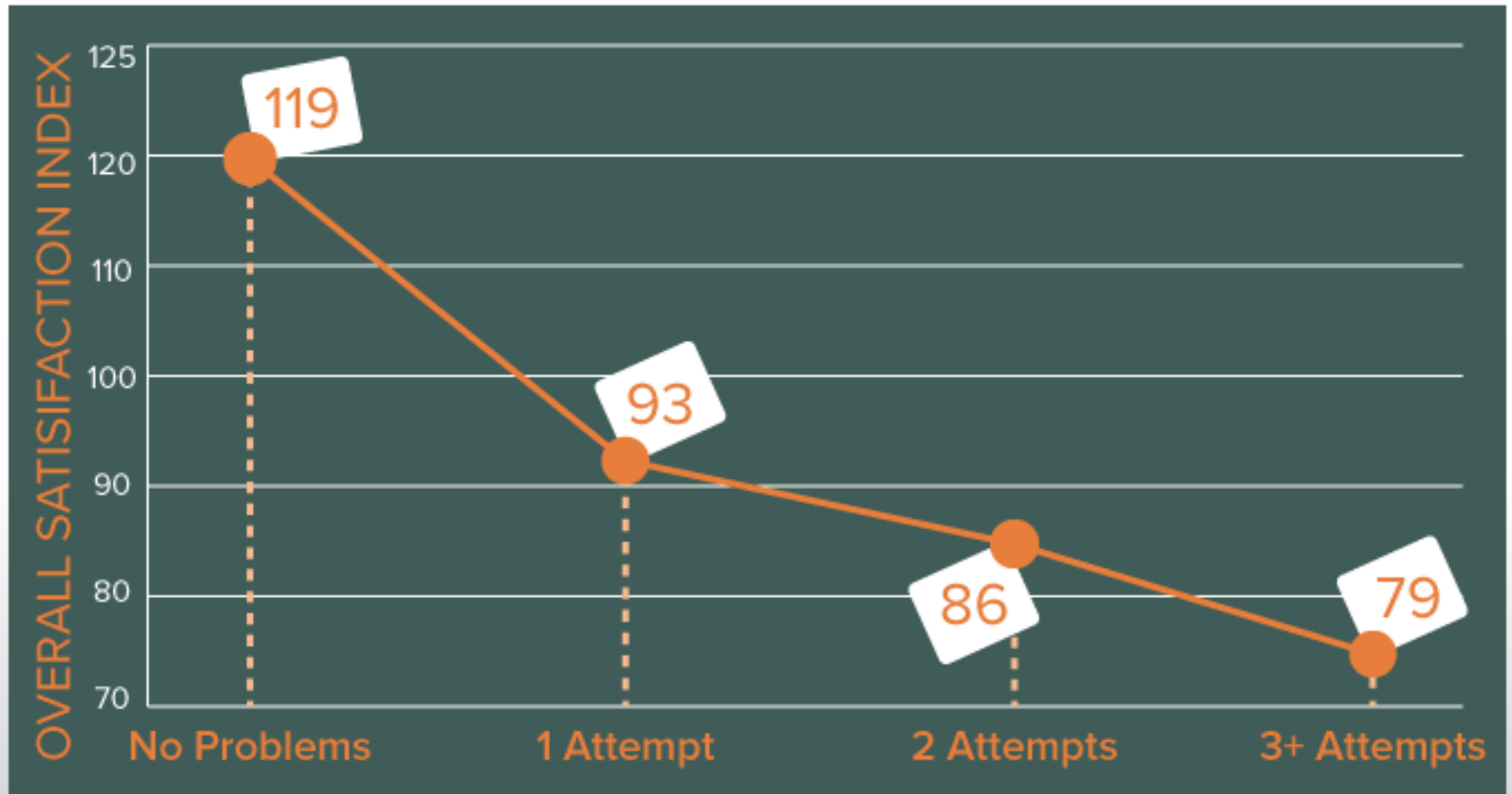
What is the cost of a callback?



The saddest thing in life is
wasted talent.



Overall Satisfaction Declines Dramatically When Problems Require Repeated Attempts to Fix



Source: 2002 J.D. Power and Associates
New Home Builder Customer Satisfaction Study

What is the true cost of poor quality?

The level of quality in any company is its acceptance of non-conformance to its own standards of work.

Activity: Calculate the Cost of Poor Quality

The Cost of Poor Quality



Individual Incidents		
Problem or Defect	Issues Associated with the Problem or Defect	Cost of the Issue
Gasket seal along the attic hatch	Rework	\$ 75.00
	Extra Material	\$ 20.00
	Lost Production	\$ 150.00
	Phone Calls (3)	\$ 15.00
	Transportation	\$ 4.00
	Reschedule	\$ 5.00
		\$ 269.00

Lost Revenue Per Year		
Number of Homes/Units	Annual Activity Rate	Total Cost Per Year of Problem
<i>Total number of homes/units within the company per year</i>	<i>Percentage of homes/units with this problem per year</i>	<i>Total estimated cost for the problem or defect per year</i>
1000	10%	\$ 26,900.00

EXAMPLE

List Cost Areas of Doing Business

The Cost of Doing Business



Costs are based on a 5 day-8 hour work schedule (≈260 work days per year)

Labor Cost	Cost per Year	Cost per Day	Cost per Hour	Cost per Minute
Labor – Management	\$ -	\$ -	\$ -	\$ -
Labor – Office	\$ -	\$ -	\$ -	\$ -
Labor – Sales	\$ -	\$ -	\$ -	\$ -
Labor – Crew leader/Super	\$ -	\$ -	\$ -	\$ -
Labor – Crew member	\$ -	\$ -	\$ -	\$ -
Labor – Crew member	\$ -	\$ -	\$ -	\$ -
Payroll taxes (Avg 14%)	\$ -	\$ -	\$ -	\$ -
Total Labor	\$ -	\$ -	\$ -	\$ -

<i>Office Staff Labor (per hour)</i>	
\$	-

<i>Field Crew Labor (per hour)</i>	
\$	-

Fixed/Variable Cost	Cost per Year	Cost per Day	Cost per Hour	Cost per Minute
Office Rent or Mortgage	\$ -	\$ -	\$ -	\$ -
Truck Maintenance	\$ -	\$ -	\$ -	\$ -
Truck Insurance	\$ -	\$ -	\$ -	\$ -
Gas	\$ -	\$ -	\$ -	\$ -
Tools and Equipment	\$ -	\$ -	\$ -	\$ -
Tool Maintenance	\$ -	\$ -	\$ -	\$ -
Office Supplies/Software	\$ -	\$ -	\$ -	\$ -
Computer Repairs	\$ -	\$ -	\$ -	\$ -
Legal Fees	\$ -	\$ -	\$ -	\$ -
Accounting	\$ -	\$ -	\$ -	\$ -
Licensing, Bond and Certificates	\$ -	\$ -	\$ -	\$ -
Health Insurance	\$ -	\$ -	\$ -	\$ -
Workers Comp Insurance	\$ -	\$ -	\$ -	\$ -

<i>Total Overhead (per hour)</i>	
\$	-

Total Company Cost	
\$	-

LET'S COMPLETE AN EXAMPLE

Individual Incidents		
Problem or Defect	Issues Associated with the Problem or Defect	Cost of the Issue
		\$ -
		\$ -
		\$ -
		\$ -
		\$ -
		\$ -
		\$ -
		\$ -
		\$ -
		\$ -
		\$ -
		\$ -

Lost Revenue Per Year		
Number of Homes/Units	Annual Activity Rate	Total Cost Per Year of Problem
0	0%	#REF!

Instructions

The first column is for the one problem or defect that occurs within the company.

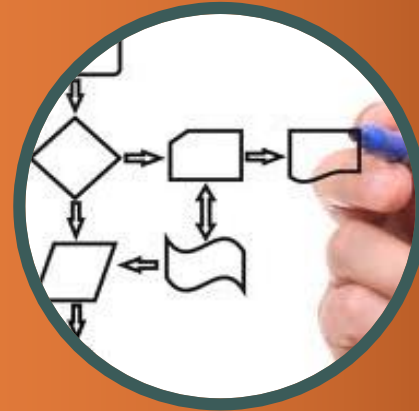
The second column is for the issues associated with the one problem or defect that occurred.

The third column is for the costs associated with each of the issues.

How do most inefficiencies and defects happen?

1

PROCESS



2

MISTAKES



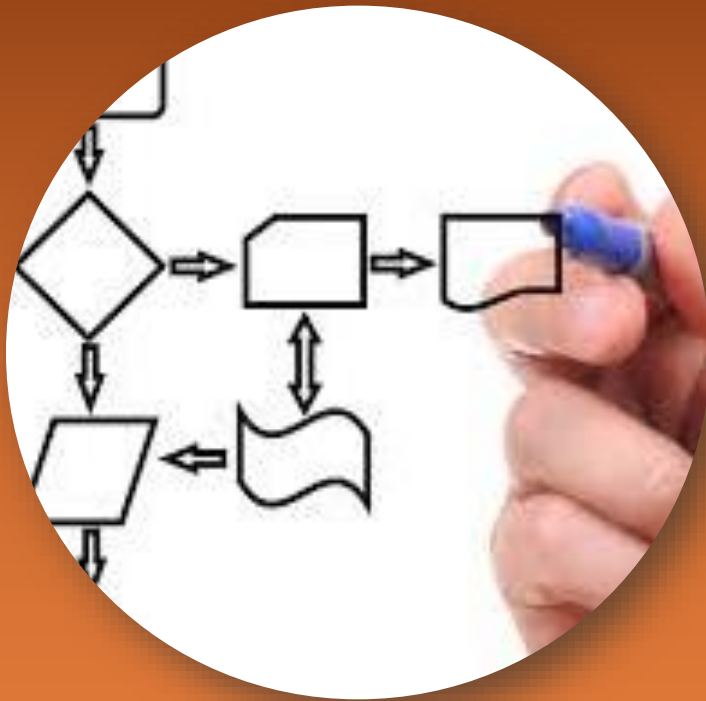
Mistakes





Distribution of Defect Cause





PROCESS

Fails More
Than

PEOPLE



F₄

E₁

A₁

R₁



Accountability and Responsibility

- A blame free workplace *never* dismisses assignment of accountability and responsibility.

The Five Whys

Ask “Why?” 5 times to get to the root cause of a problem, defect or inefficiency

There was no weather stripping on the attic access hatch

WHY?

There was no weather stripping on the truck

WHY?

It wasn't on the work order

WHY?

The sales person didn't document it during the assessment

WHY?

There is no standardized assessment form

PROCESS

Building Quality Into The Process

**Standards
Training
Coaching
Mistake Proofing
Quality Control
Quality Assurance
Improvement**

Process

“It is better to have common people managing a superior process than to have superior people managing a bad process.”

- *W. Edwards Deming, Quality Pioneer*

Path to Sustainable Profit

PEOPLE PERFORMANCE PROFIT



Internal & External Effective & Efficient ROI

Respect and honor each:

- Employees
- Customers
- Funders
- Trade allies
- Suppliers

Execution:

- S.A.F.E standards
- Effective
- Efficient

Result:

- Cost of conformance
- Cost of poor quality and inefficiency

No One Has Ever Made Less Money
Doing Work Right The First Time!



Where do we go from here?

- What do you feel is the greatest benefit associated with quality management?
- What will you apply in the next 48 hours after you leave this room?

ACTION PLAN



Document and track defects, extra trips, waste, etc.



Calculate the cost of one defect or issue that bugs you



Work as a team toward a solution

Advanced Energy Online Resources

[http://insights.advancedenergy.org/ets/pages/?p=success with quality management](http://insights.advancedenergy.org/ets/pages/?p=success%20with%20quality%20management)



Advanced Energy Training Portal

Advanced Energy - Success With Quality Management

Literature	Quality Tools
<ul style="list-style-type: none">• Cost of Poor Quality	<ul style="list-style-type: none">• Cost of Doing Business
<ul style="list-style-type: none">• Cracking the Quality Code	<ul style="list-style-type: none">• Cost of Poor Quality
<ul style="list-style-type: none">• Creating a Blame-Free Company	<ul style="list-style-type: none">• Quality Improvement
<ul style="list-style-type: none">• Quality Common Language	<ul style="list-style-type: none">• Event Log
<ul style="list-style-type: none">• Quality Management References	

Thank you!

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