

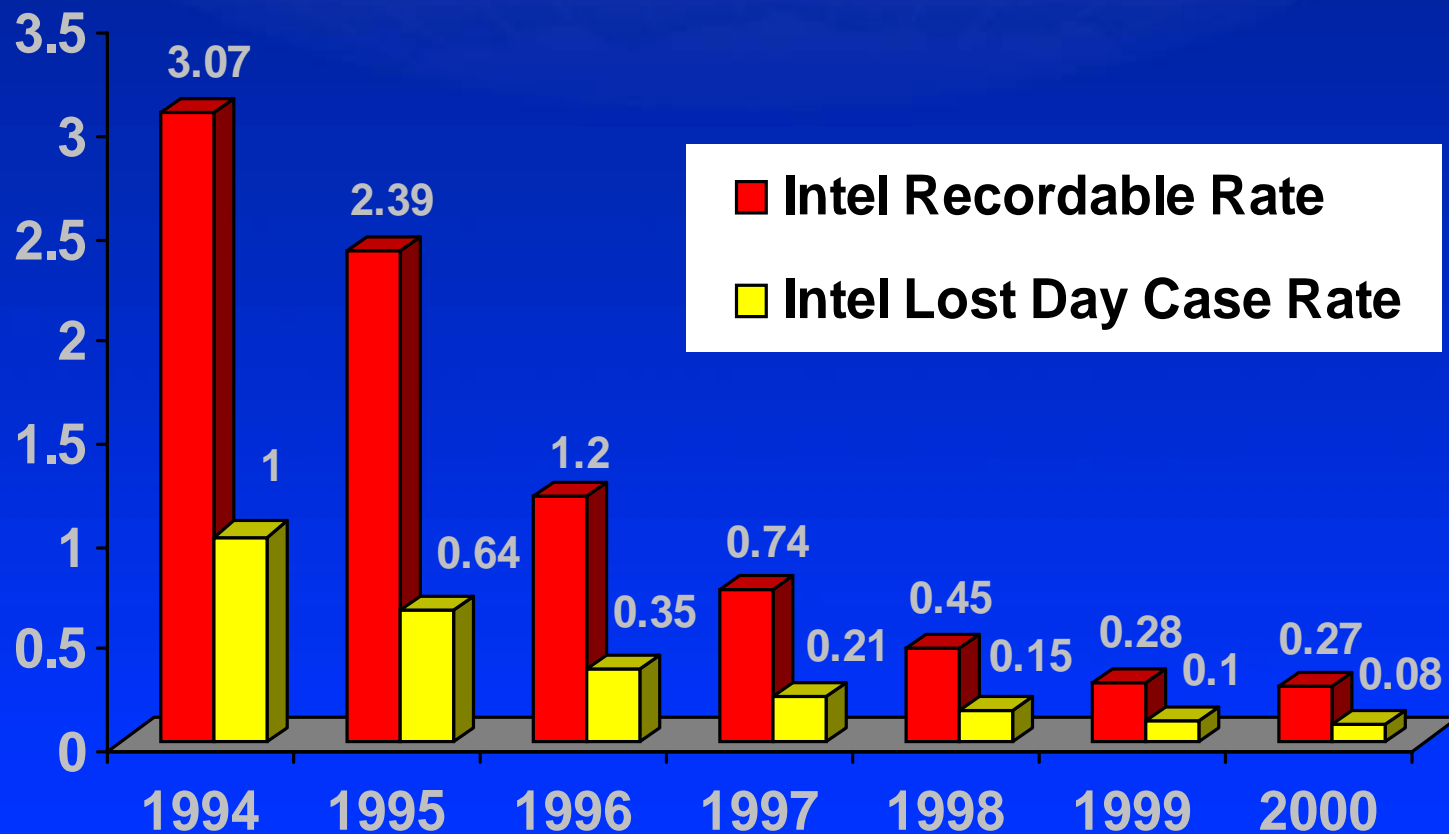
Using “Copy Exactly!” Mentality to Proliferate Safety Culture

Intel’s Path to Safety as an
Organizational Value

A Quick History

- Why Safety Made Sense
- Transformation from Priority to Value

Improvement Over Time



Phases of Safety Excellence

Phase 0
Huh?

Phase 1
No Jail

Phase 2
Save \$

Phase 3
Priority

Phase 4
Value

Phase 5
Instinct

What is
EHS?

Keep us out
of jail &
don't shut
us down

Accidents
are costing
us too much
money

EHS is a top
priority

EHS is a value

EHS is
Instinctual

EHS
Performance

Self Assessment – Data Focus

Culture Focus

Compliance Focus

INTEL SAFETY MODEL



Owner's Role in Building Culture Among Partner Contractors

1. First - Establish unwavering compliance with solid safety fundamentals.
2. Next - As good habits develop over time, begin to transition from "compliance" focus to "safety as a value" focus by establishing these cultural elements:
 - a. Personal commitment at every level of the organization
 - b. Visible, unquestionable management support
 - c. Clear and open communication about safety in the organization
3. Finally - Develop partnership with contractors. Increase self-reliance and independence by allowing more autonomy over time. Rely on contractors to identify and solve their own problems while requesting management support when needed. Coach as necessary without dictating. Intervene only as a last resort.

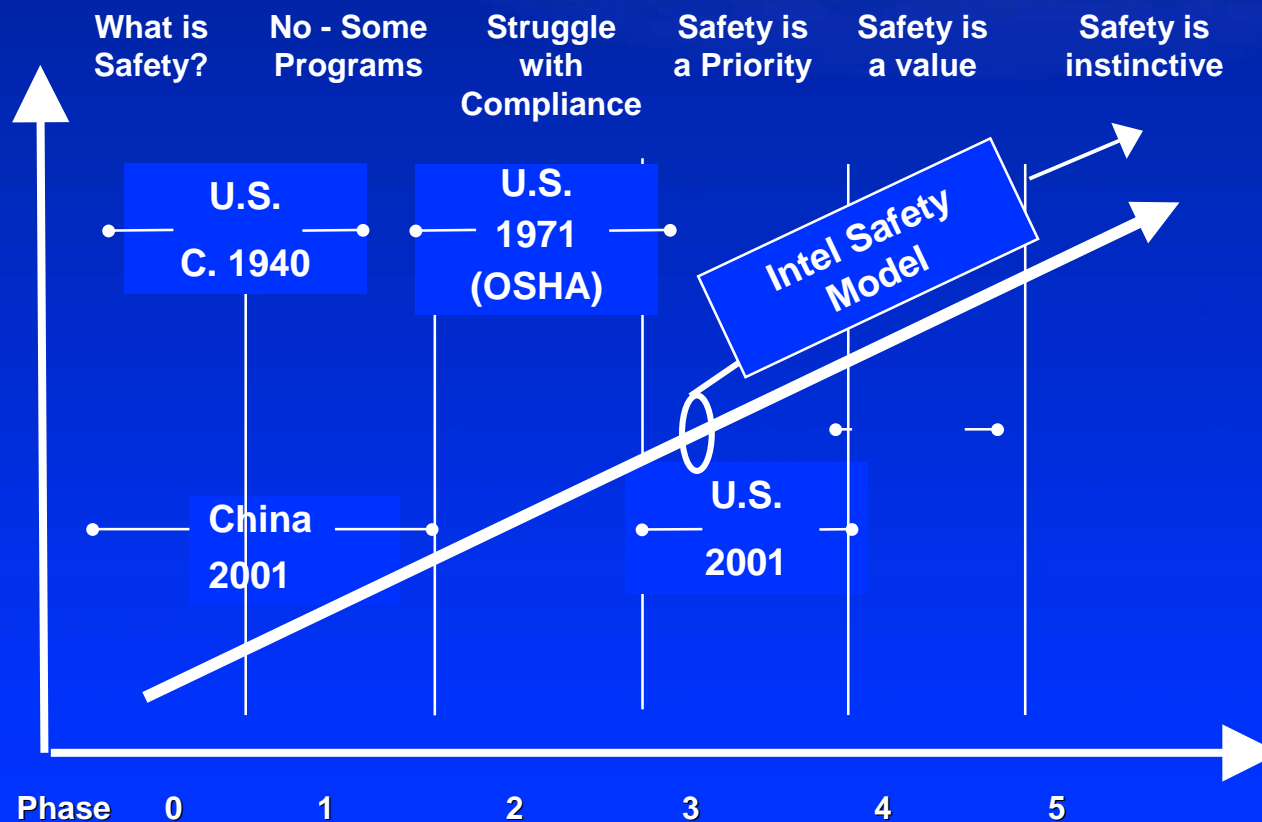
*Once we figured out it was a
culture thing...*

“Copy Exactly!”

- Copy Exactly! is a philosophy based on the principle that identical inputs to identical equipment will produce identical results.
- It means that we copy process equipment, installation, factory designs as well as, project planning and execution procedures exactly, when we add manufacturing capacity at a new or existing factory.
- More simply, Copy Exactly! (CE!) is a process for documenting and implementing change (or exceptions) to standards.

“CE!” Delivers Safety Results

Construction Safety Model: Projects in China



Safety Culture Focus

- Compliance driven
- Visual training
- Tool use
- No behavioral safety
- Provide PPE
- Fatality prevention focus

Program Results

INTEL OCIP PROGRAM RESULTS (5 Years of Construction Activity)

- Total Number of Projects = 60 (37 in Oregon)
- Total Construction Value of \$5,304,454,498
- Total Workers' Compensation payroll of \$1.3 billion
- Total savings rate of 2.15% -- \$27,950,000
- Average Cost Per Man Hour rate = \$.20

Case Study: Leveraging Data Worldwide

- 3-Fab Study
 - Background
 - Findings
 - Recommendations/Path Forward
- SMT
 - Executive Management
 - Develops and ratifies path forward
- SELT
 - Contractor Partnership
 - Evaluates, ratifies and proliferates tactics

METHODOLOGY

Three Categories of Data Evaluation

Comparison of Injury Distribution: Recordable Injuries and OCIP Cost Data

What is the full story behind all of our injuries?

Precipitating Events Analysis

What was the worker doing at the time of injury?

Statistical Analysis of 9 Relationships

Are our perceptions supported by data?

Injury Type Distribution Comparison All Injuries vs. Rec. Injuries

All injuries	%	Rec. injuries
	55	
	50	Cut/Lac
Strain/sprain	45	
	40	
	35	
Cut/Lac	30	
	25	Strain/sprain
	20	
Contusion	15	Fracture
Foreign body	10	
Burn, fracture, respiratory, other	5	Foreign body, contusion, respiratory, other

Which Precipitating Events are dominant in injury frequency and severity?

Precipitating Events*	Count	Injury Costs
All Material Handling Activities	833	\$3,011K
Walking in the Work Area	363	\$1,125K
Using Power or Hand Tools	349	\$311K

Note what the workers were doing when they were injured.

Then ask yourself, is the key to prevention with a safety program? Or, somewhere else?

**all other PE's combined: 531 total with a total cost of \$573K*

Questions	Result
Is age linked to likelihood of injury?	No
Is age a factor in injury severity?	No
Is Supervisor/Craft ratio related injury rates?	Yes
Do some trades incur more severe injuries than other?	Yes
Does time on site since NCO relate to injury?	No
Does individual safety attitude correlate to injury rate?	X
Are safety attitudes predictive of company injury rate?	X
Do certain PE's lead to certain injury types?	Yes
Do certain trades have certain injury types?	Yes
Does past safety performance predict future performance?	No

CONCLUSIONS

Where should we focus our injury prevention efforts?

More Helpful

- Precipitating events analysis for all injuries.
- OCIP Cost & Injury data.
- The consequences of project management and field decisions, methods and performance standards.

Less Promising

- Recordable Rates and Injury types
- Perceptions that are not supported by reliable data.
- Incident reviews that focus on worker behavior as a root cause.

RECOMMENDATIONS

1. Focus on reduction of strain and sprain injuries.
 - Insist on spotless housekeeping
 - Reduce or eliminate manual handling
2. Develop New Project Indicators and Measures of Success
 - Conditions dictating Precipitating Events
 - Real-time monitoring of OCIP Data
3. Develop enhanced means, beyond traditional prequalification data, of predicting company project safety performance.
4. Standardize recordkeeping requirements to allow future data collection and analysis.

Using CE! And 3-Fab Study to Eliminate Injuries

- Safety Management Team
 - Intel Senior Construction Management
 - Includes PMs, EHS, Procurement
- Safety Executive Leadership Teams
 - Intel, GC and Trade Senior Executives/Owners
 - Two-way feedback and communication