



DuPont Sustainable Solutions

Creating a Framework for Sustainable Contractor Safety

Sumanesh Banerjee, Sr. Business Consultant.

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2013 Report - Death of app. 500 Indian construction workers in Qatar !!! ???

” React more on paper “.

As per ILO India has the world’s highest accident rate 165 out of every 1,000 construction workers suffers an injury while at work.

BMC – Mumbai alone kills 170 Sewer Cleaners every year.

“ React less on ground “.

Who is a Contractor Labor – 3 D Jobs



DuPont Sustainable Solutions

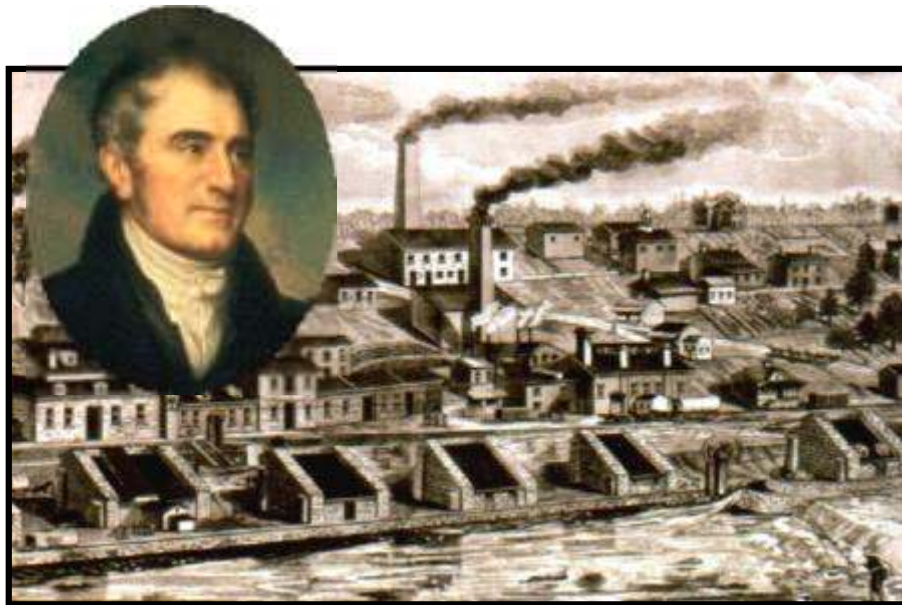
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Why **don't** we **feel** unsafe?

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Safety – An Integral part of DuPont DNA



Powder mill operation -1802

First safety rules - 1811

*“Safety is a line management responsibility.
“No employee may enter a new or rebuilt mill until
a member of top management has personally
operated it.”*

– E. I. du Pont

Safety statistics began in 1912

Belief that all injuries are preventable in 1940s

Off-the-job safety 1950s

PSM – 1960s

“Goal is Zero”
1990s

Sustainability late
1990s

**“You get the level of safety
that you demonstrate you
want.”**

- **Lack of leadership commitment for safety**
- **Belief that work can be done “faster” if safety rules and regulations are eliminated or overlooked.**
- **Safety is considered a cost not an investment**
- **Normalizing deviations - Lowering the Water – Line.**
- **High illiteracy rate & Lack of training**
- **High labor turnover rate**

- [6- RAS BRAIN.wmv](#)
- **It is all about values**
- **Understanding why we want to keep safe is a powerful motivator and increases our value for safety.**
- **Fear of Habituation.**

WHY PEOPLE DO WHAT THEY DO ?



08 DnA Social Approach

2. Cognitive Approach

The way we think.

The way we make decisions.

The way we interpret our world.



CHANGE IN THE WAY PEOPLE VALUE AND BELIEVE RATHER THAN JUST ON HOW THEY BEHAVE

PHILOSOPHY

a way of looking at the world and explaining it.

Main explanations in psychology for:

Why people do what they do?

3 main aspects:

1. Behavioral Approach

BACK IN THE 70'S, IT WAS THOUGHT THAT YOUR BEHAVIOR WOULD CHANGE THE WAY YOU THOUGHT. IT WOULD DICTATE YOUR COGNITION



Depending on how your behavior is reinforced, both positive and negative you are more or less likely to have that behavior occur again.

ACTION (Behavior) is the result of action (Consequence)

ACTION (Behavior) is a result of Cognition

3. Social Approach

Humans are social beings.



We work out how to behave according to SOCIAL NORMS.

UNWRITTEN & INFORMAL.

ARE



Norms that we are not formally trained on. We actually pick cues IT UP IN OUR SOCIAL CONTEXT.



Our Social

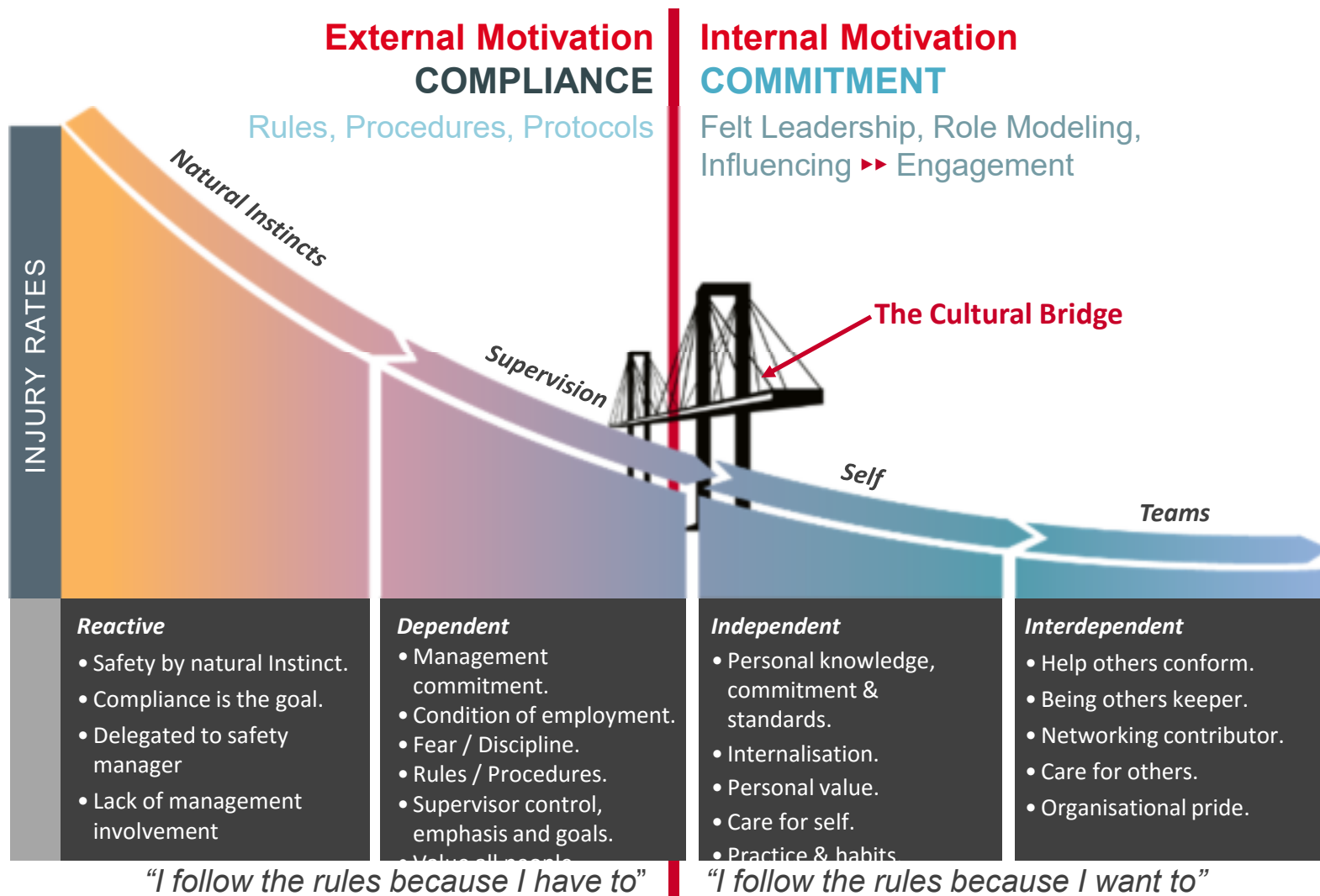
Our Rules &

The innovation is the Integration

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Building a Contractor Safety Culture is a Journey



How we adopt contract employees to a Holistic Safety culture ?



- **Lack of leadership commitment for safety**
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- **Normalizing deviations.**
- **Lowering the Water – Line.**

The Six-Step Contractor Safety Management Process



DuPont's Contract Management & Contractor Management

1) **Select “ safe ” Contractors** - # team – Safety, Construction, Sourcing, PM, Legal. Pre-screened qualified bidders list using objective and subjective criteria viz. EMR, TRFR ; 3P’s. People, Program, Performance. Look for Management commitment to safety. Pass in both to move to next stage.

2. **Contract Preparation** : State your safety expectations in the contract Package the same way that you would state other necessary terms and conditions. E.g. 1 safety steward per 50 workers. H/Keeper; cost of orientation & training to consider.

3. **Contract Award** : Short-listed bidders bid evaluation ; site visits, ; communicate scope of work, your safety expectations to the qualified contractors prior to award. **3 meetings Bid** - Don’t – assume.- Read, Understood, Include money for Safety programs ; **Pre-award** – narrow down list of bidders – more detailed discussion with sub cons, competent resources.& **Kickoff meeting** –.Selected Contractor

4. **Orientation & Training** : After selecting a contractor and prior to the start of work, make sure that the **contractor workforce is oriented and trained.- Attrition rate !!!!!**

5. **Managing the Work** : During the execution of the work, **audit and monitor** the work for compliance with stated communicated expectations. CFSA, TBT, SC Meetings, Sharing, of informations.

6. **Post Contract Evaluation** : No of NC's issued, response to UA, & UC. Learning from Incidents, SHE metrics for Leading & Lagging indicators in each prior step.

If Steps 1 – 3 are done in a RUSH or L – 1 as only criteria you feel the HEAT in Step – 4.

Handovers From One Person To The Next Must Be Successful



Purpose :

- (1) How did Tata Steel ensure that contract firms/workers were safely conducting their business on the project sites?
- (2) How did working safely have a positive impact on business objectives for both Tata Steel and its contractor(s)?

Process :

A three-pronged plan was put into effect to transform the “basic DNA” of Tata Steel’s safety performance, especially among the contract workforce.

Phase 1: Containment – Audits, Briefing, Sharing, Involvement, Communication.

Phase 2: Establishing systems and processes – Model site as catalyst.

Phase 3: Sustaining the safety way – Operating discipline

Product :

Lost Time Injury Frequency Rate reduced from 0.8 to 0.2 over 4 years

Tata Steel received the World Steel Association Excellence Recognition in Safety and Health award in October 2009.

A new blast furnace. was built and commissioned without lost time injuries, recording 35 million injury-free hours during construction.

Purpose :

Introduce a Risk – based CSM system in JERP – S.S.

Process :

7 – Steps Exemplar driven CI methodology.

Product :

New process developed for Contract Management with HSE requirement emphasis on Job scope, Risks, Minimum required competencies (MRC) for workmen and supervisors. Achieved -

**Risk Based Decision Making with Risk Awareness in CSM
Risk Thinking & Ownership with Risk Communication for CSM
stakeholders.**

**Critical observations (Severity 4&5) reduced to zero
Reduction in Severity 2 observations from 39 to 3
Unsafe Acts reduced from 81.25% to 10.5%**

Statutory & Regulatory Changes to consider :



Number of dedicated housekeeping personnel based on the total number of contractor workmen at site.

One safety steward for every 50 workers.

One Supervisor for 5 – 10 working gang / people.

Assess a contractor's workman's compensation experience modification rate or EMR - linking workmen compensation or insurance to past incident records ; as well as their OSHA total recordable frequency rate.

5 Key Takeaways :



- 1) Take Safety as a Value and create an inclusive Safety culture integrating it at the CORE of Management System.**
- 2) First value Safety then change Culture**
- 3) Treat Contractor Employees as own employees w.r.t. SAFETY.**
- 4) Hold people accountable – Owners & Contractors both.**
- 5) Assess your own Contract Management process against the 6 steps of Du Pont.**

यत् यत् अचरति श्रेष्ठः तत् तत् इतरो जनः
स यत् प्रमाणं कुरुते लोकः तत् अनुवर्तते

**Whatever a leader does, others imitate.
Ordinary people simply follow the standards
set by him**

Bhagavad Gita 3 - 21

