Training the ‘blunt end’ and the ‘sharp end’ to navigating safety

René Amalberti
Training the blunt end to navigating safety
When safety does not win 100%

Managing conflicts between safety and other priorities

6 key points of risk management to train the top level management
Navigating between reefs

• Companies and Production Units may collapse for many reasons
  • Loosing markets, unable to expand
    • inability to cover market demands, offer falling behind innovations
    • Fierce market competition, poor image, economic recession
  • Unable to generate high quality product in a timely manner, at affordable cost (including maintenance)
    • Endemic defect on the production chain / care chain
    • Excessive junior staff
    • Poor maintenance
    • Social peace at risk, strike actions
  • Finance crisis, unable to fund development
    • Business model
    • Cash flow, financial debts, loans
    • Partnership, alliances, … economic and political dependencies
  • Unsafe macro, meso and micro systems
    • Dramas, accidents, public scandals
    • Blame from authorities, possibly loss of authorization

Risks are not only Safety and HSE!
• Every CODIR/COMEX reshuffles the cards according to the most imminent threat, which takes the token

① Accept the idea that making concessions is the norm
EDF Executive Board, JULY 2016

The token and priority of the day was given to commercial and political issues. As usual, all other dimension had to step back, including Finances. The chief financial considered that the decision was too much consequential for Finance asking to step back so far on his dimension that he was unable to provide a compromise. He resigned from the board.

An example of the limit of making concession

The Telegraph

EDF board member resigns, attacking Hinkley Point nuclear project as financially ‘risky’

Hinkley Point C has proved highly controversial

Emily Gosden, energy editor

28 JULY 2016 • 2:54PM

A board member of EDF has quit ahead of its meeting to approve the Hinkley Point Nuclear plant, calling the project “very risky” and suggesting it could drag the French utility giant into an “abyss.”

The resignation of Gerard Magnin, who was proposed to EDF’s 18-man board by the French Government, is not expected to prevent the £18bn project gaining approval in a vote later on Thursday. But his comments will stoke further doubts over the financial viability of project, following the resignation of chief financial officer Thomas Piquemal in March and the opposition of unions who fear EDF cannot afford to build the reactors.
COMPETITIVE ALLOCATION OF PRIORITIES AMONG DIMENSIONS

• “The optimal wishful plans”
  - Each manager in charge of a dimension (Finance, Production, Marketing, Human resources, Safety) attends executive meetings with a wishful optimal plan in mind
  - This wishful plan reflects a risk matrix associated with recommended interventions

• “The Dictatorship of short-term”
  - Each executive meeting, at several levels of the management chain, prioritizes the topics of the day perceived as the most harmful short-term effects.
  - Hence, one or two dimensions among Finance, Production, Marketing, Safety, human resources and social climate, overwhelm all other dimensions.

• Optimal wishful plan of dimensions are competitive with one another.
  - Giving the token of the day to one dimension inevitably asks the other dimensions stepping back in their optimal wishful plan

② Prepare each direction to make concessions and ‘step back’ from its ideal plan, while maintaining acceptable results.
### MAX BAR
- **Safety**
  - Anticipated investments in search of above standard results
- **Finances**
  - Increased Net profit
- **Sales/ attractiveness**
  - New markets, expansion strategy
- **Production**
  - Timely & high Quality production
- **Social**
  - Positive climate, joy at work, Rewarding culture

### MIN BAR
- **Safety**
  - Full legal compliance on a 24/7/365 basis
  - Borderline conditions of use ‘illegal-normal’ practices authorized by local managers.
- **Finances**
  - Contextual limited losses
  - Increased debt
  - Financial losses
  - Understaff and Under equipment required
- **Sales/ attractiveness**
  - Market control, stabilisation of volume
- **Production**
  - Unspoiled quality at high social cost
  - Loss in market share
  - Low Quality Penalties
- **Social**
  - Conformity with collective agreement and usual local social habits
  - Social tension
  - Social crisis
  - Strikes, losses of productivity

**Notes**
- Near Bankruptcy
- Serious / frequent incidents mostly recovered
- Significant commercial collapse
- Low Quality Penalties
- Production induced loss of production & safety issues

---

**2017_ATC Malmö**
NOTATION SHEET
HOW FAR WILL YOU ACCEPT TO GO FROM IDEAL?

Safety
- Anticipated investments in search of above standard results
- Full legal compliance on a 24/7/365 basis
- Borderline conditions of use ‘illegal-normal’ practices authorized by local managers.
- Serious / frequent incidents mostly recovered

Sales/ attractiveness
- New markets, expansion strategy

Production
- Timely & high Quality production
- Unspoiled quality at high social cost
- Low Quality Penalties
- Production defect, loss of costumers

Maintenance
- Optimal preventive maintenance
- Just-on time maintenance
- Reactive maintenance
- Maintenance induced loss of production & safety issues

MAX BAR

MIN BAR

??

2017_ATC Malmö
PERFORMANCE LEVELS

1: REFERENCE

2: COMPENSATIONS TO MAINTAIN OPTIMAL SAFETY DESPITE NON ADHERENCE TO THE MAX BAR

3: END OF FULL COMPENSATION

MAX BAR OPTIMAL

ACCEPTABLE BAR +

Area of full compensation

ACCEPTABLE BAR -

Growing risk
Partial compensation

MIN BAR

High risk

OPERATIONAL GOAL

2017_ATC Malmö
A NOT SO COMMON GOOD PRACTICE:
PREPARING DEGRADED PLANS

The triangle to be prepared upstream

**Plan A**
- Objectives **ideal**
- Technical resources
  - Existing
  - To be acquired
- Human resources
  - Existing
  - Numbers
  - Expertise
  - To be acquired
  - To be trained

**Plan B**
- Objectives **maintained**
- Technical resources
  - Degraded but to what extent?
  - Which compensatory measures?
    - Specific efforts in maintenance / training / loss of quality/production; with which indicators?
- Human resources
  - Degraded but to what extent?
  - Which compensatory measures?
    - Interim, expertise, training
    - Specific managerial actions.

**Plan C**
- Objectives **Stepping back from the objectives, how far?**
- Technical resources
  - Degraded but to what extent?
  - Which compensatory measures?
- Human resources
  - Degraded but to what extent?
  - Which compensatory measures?
When safety does not win 100 %...

③ Stepping back requires counterparties
Whatever the amplitude of concessions, concessions need to be communicated in full transparency to the middle and front line managers who will have to manage.

Train front line et middle managers to compensation strategies.
POSSIBLE REAL TIME COMPENSATION DEPENDS ON LONG TERM INVESTMENT

Range of possible real time compensation
Managers’ training and middle and long term investment => wide range of possible compensation

ACCEPTABLE BAR

MIN BAR
High risk

ACCEPTABLE BAR

ACCEPTABLE BAR

Little middle and long time investment => narrow range of possible real time compensation

MAX BAR

2017_ATC Malmö
Three components of risk management

**Long term investment**
- Years and months before
- Build the team and their values
- Build leadership
- Build trust and transparency

**Preparation**
- Weeks and days before
- Anticipation
- Pre-organized responses

**Real time management and adequate compensation**

Those phases also depend on top management.
⑥ Set a memory of concessions. Never cumulate arbitrations on a long period of time on the same direction, especially on the safety dimension.
Take away

1. Accept the idea that making concessions is the norm
2. Prepare each direction to make concessions and ‘step back’ from its ideal plan, while maintaining acceptable results.
   - Prepare a range of acceptable concessions and associated consequences before attending the meeting; develop plans A, B and C
3. Stepping back requires counterparties
   - Executive committee and leadership teams must listen to the directions who have to step back, and accept counterparties to allow leeway to middle and front line for controlling and compensating risks.
4. Whatever the amplitude of concessions, concessions need to be communicated in full transparency to the middle and front line managers who will have to manage
5. Train front line et middle managers to compensation strategies
6. Install a memory of concessions. Never cumulate arbitrations on a long period of time on the same direction, especially on the safety dimension.
Group discussion

• Please think about examples of arbitrations and share them with the whole table

• Select ONE to be reported orally:
  • How far have you controlled the 6 points mentioned in the talk for this arbitration?
  • What are the most vulnerable points?
  • What lesson?
Training the sharp end to navigating safety

Try a diagnosis of your safety culture to becoming an HRO
Fight the organisational silence
Learn and use the full range of compensation strategies
Manage migration to boundaries
Use Seven golden rules to keeping control of degraded situations
Try a diagnosis of your safety culture to becoming an HRO
Try a diagnosis of your safety culture

Where are our strengths and weaknesses?
Becoming an HRO

Indicators other than the TRIR
Sharing hazard analyses
Combating fatalism
Doubt Culture
Culture of attention to detail in operations
Shared vigilance
Identify the root causes of events
Learning Culture

Culture of transparency
Just Culture
Questioning culture
Shared awareness of the most important risks

Shared culture of attention to detail in operations
Shared vigilance
Identify the root causes of events
Learning Culture

Dialogue
Management leadership and worker involvement
Integrated culture: mobilising everyone

Constant attention to the three pillars
Relevant balance between rule-based and managed safety

Circulation of information
Walk the talk
Fair external communication
Position of safety in decisions
Directive-participative leadership

Discussion among colleagues
Role of groups

HOF, work situations
SMS, rules, procedures
Technical barriers
Preparing for unexpected events and crises

Developing resilience
Flexible culture

Just Culture
Circulation of information
Walk the talk
Fair external communication
Position of safety in decisions
Directive-participative leadership

Discussion among colleagues
Role of groups

HOF, work situations
SMS, rules, procedures
Technical barriers
Preparing for unexpected events and crises

Developing resilience
Flexible culture

Executives, managers, workers
Support Services
Managing interfaces
ERB
Contractors

Relevant balance between rule-based and managed safety

Integrated culture: mobilising everyone

Integration culture: mobilising everyone

Becoming a High Reliability Organization (HRO)
Fight Organizational silence
ORGANIZATIONAL SILENCE

A situation where potentially important information is held at low levels in the organization, but is not passed upwards and/or processed or taken into account in making strategic choices.
Fighting organizational silence

- Continuous improvement deficit: Unresolved problems are a source of errors and risks.
- Difficulties and errors are never reported.
- This confirms the management's illusion that the present situation is compliant with the rules and that they have the right managerial model.
- The workers are convinced that reporting problems makes no difference.
- Organizational non-quality acts as a benchmark: work performance is influenced by the quality of the performance offered by the organization
- Weakened resilience of the organization
Workers' defences

- When a situation is difficult to bear and you have no power to change it, your subconscious changes your **perception** of the situation to make it bearable.
- For example: "it's not that dangerous"
- Frequently contributes to denial of risk
- Relationship between practices and beliefs
"Just culture"

- Emphasise the value of bottom-up information
  - On every level
  Employees of main contractors and subcontractors
    - Value different points of view
    - In real time (congratulations)
    - As an assessment criterion

- Explicit, negotiated, homogeneous recognition/reprimand policy
  - Make the management’s reaction (in the event of a deviation) predictable
  - A shared understanding of errors and violations, and a shared view of appropriate reaction
Learn the portfolio of compensation strategies
PERFORMANCE LEVELS

MAX BAR
OPTIMAL

ACCEPTABLE BAR +

Area of full compensation

ACCEPTABLE BAR -
Growing risk
Partial compensation

MIN BAR
High risk

1: REFERENCE

2: COMPENSATIONS TO MAINTAIN OPTIMAL SAFETY DESPITE NON ADHERENCE TO THE MAX BAR

OPERATIONAL GOAL

3: END OF FULL COMPENSATION

TRAINING FRONT LINE MANAGERS TO MANAGING DEGRADED SITUATIONS
The portfolio of intervention strategies to maintain safety at acceptable level

Optimisation strategies

- Ensure that best practices in prevention are in place and being implemented
- Encourage compliance
  - Build and update best standards
  - Build capacities and resources
- Optimize Human and Organizational factors
  - Improved style of Leadership
  - Improved working hours
  - Improved utilization of skills
  - Share values among the team
  - Improved working conditions

- Innovate
  - Adopt new solutions redefining boundaries of playability, quality and safety
  - Analyse risk associated with innovative solutions

Risk management strategies

- Restraine range of activity to what can be properly performed
- Specify, share and respect ‘no go’ issues
- Accept intelligent adaptation to context
  - Share situation awareness and risks in the team
  - Detect and recover errors
  - Improve failure to rescue and team decision making
- Adopt a context adapted safety culture (Ultra safe, HRO, Adaptive)

- Mitigate
- Adapth and recover
- Increase Risk Control
- Adopt Best Practices

2017 ATC Malmö
Using a wider range of Safety Strategies

Safety improvement

- Quality Improvement
- Best Practice

Overused

Over trusted

Risk control

- Adaption & Recovery

Underused

Under trusted

- Human factors, ergonomics, system improvement
- Optimise the System

Underused

Under trusted

- Mitigation

Aspects of regulation

Aspects of human factors, teams, resilience

Risk Management

2017_ATC Malmö
Manage migrations to boundaries
**Very Unsafe Space**

**Performance**

**Accident**

- Never
- Sometimes
- Always

**Illegal Space**

**Usual Space**

**BTCUs**

**Expected safe space of action**

- as defined by professional standards
- Always
- sometimes

**Market demand**

**Technology**

**Individual concerns**

- Time on duty
- Life quality...

**Individual benefits**

- Very unsafe space

**Illegal normal**

**Real life standards**

**Safety regs & good practices**

**Certification/accreditation standards**

**Training front line managers to managing degraded situations**
The BTCU becomes the ‘stabilized usual level of performance’

- We do them regularly with only rare adverse outcomes though many near hits.
- We come to feel safer and safer, we come to see the BTCU as normal and safe.
- Risks are known and supposedly under control.
- Practices are rarely penalized even though they are known.
The Result of Migration is Well Known (2)

• There is great reluctance to monitor these new practices with indicators since they are not supposed to exist!

• It is essential to remember that all stakeholders in the system migrate and deviate from standards, including management.

• Over time, these practices become a shared professional consensus.
## Score your chance of success

<table>
<thead>
<tr>
<th>Score your matrix</th>
<th>P1</th>
<th>P2</th>
<th>P3</th>
<th>P4</th>
<th>P5</th>
<th>P6</th>
<th>P7</th>
</tr>
</thead>
<tbody>
<tr>
<td>Perceived efficacy</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>tolerance to non compliance</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Easiness of Sacrifice</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Extra resource needed</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Conflict with other policy</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Side effects</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>No measure of outcome</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

- **NO IDENTIFIED RISK**: DESIGN SOUNDS PERFECT - HIGH BENEFITS EXPECTED
- **CUMMULATION OF DRAWBACKS**: YOUR POLICY SHOULD WORK provided you control Drawback
- **Any Of TWO POSITIVE**: YOUR DESIGN NEEDS SIGNIFICANT MODIFICATION TO LIMIT POTENTIAL
- **Any OF THREE POSITIVE**: YOUR DESIGN HAS NO CHANCE TO BE BENEFICIAL FOR SAFETY
- **Any OF FOUR POSITIVE**: YOU ARE CREATING RISK WITH YOUR SAFETY POLICY
- **ANY RED**: 2017_ATC Malmö
Take home points

Control deviances and violations

• If a system is designed with only a limited sphere of safe operation, violations are very likely to occur under the conditions of actual performance.

• Violations cannot be eliminated but they can be managed. Working conditions, staffing, and medical knowledge always evolve and change over time.

• Borderline tolerated conditions of use (BTCUs) are best thought of as an understandable—although not necessarily desirable—adaptation to these changes.

• Simply considering BTCUs as unacceptable behaviors requiring disciplinary action is unhelpful; a better strategy is to monitor performance continually and to identify both violations and system migrations at an early stage.

• Dialogue between clinicians and managers is a key factor in establishing a shared safety culture. Violations and potential system migration must be discussed openly.
Seven golden rules
① I practice **HUDDLES** at job start and anytime the situation is changing
   • Take stock of the situation, share with the team
   • Reorganize resources to do the job by limiting the potential risks

② I set the **absolute no go issues** of today and voice it to the team

③ I **manage** available colleagues' **competencies** according to today risk (task and program allocation)

④ All team members are required to **publicly voice alerts**
   • Professionals voice and share alerts and bad feeling about changing contexts
   • The manager publicly acknowledges alerts and voice how to adapt

⑤ I increase **error detection, recovery and mitigation**

⑥ I **thank the team for efforts** made to control the situation within acceptable boundaries, I give apologies to clients as required

⑦ I **report incidents** and intervention strategies to the hierarchy (within the group and to the hierarchy)
Group discussion

From your perspective, what should be the most difficult sharp end intervention strategies to implement in your branch, division, unit?