



Organizational Culture & Safety Management

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Introduction - Why we are here

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Workshop Agenda

- Value-based Leadership
- Defining Safety Culture
- Why positive safety culture is important
- Components of a positive safety culture
- Assessing existing transit safety culture
- Transit safety culture challenges
- Why transit is ready for safety culture development
- Cultivating a positive transit safety culture
- Strategies to promote & maintain a positive safety culture
- Safety culture & communication
- Safety culture & skill development

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Workshop Agenda (cont'd)

- Safety Management Review
- Link between safety culture & safety management
- Identifying & analyzing the organizational accident
- Unmasking practical drift
- Employee safety reporting
- Defining safety risk management
- Safety culture & hazard identification
- Safety culture & safety risk assessment
- Safety culture & safety risk mitigation
- Safety culture & safety performance monitoring
- Safety culture & management of change
- Importance of continuous improvement

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Value-based Leadership Definition

Leaders

- Draw on values for direction & motivation
- Assert that people are mostly motivated by values & live according to these beliefs
- Lead by example
- Do the right thing for the right reasons
- Do not compromise core principles



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Examples of Core-leadership Values

- Respect
- Making a difference
- Integrity
- Authenticity
- Courage
- Service
- Humility
- Wisdom

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Earmarks of Ethical Leadership

- Loyalty & respect
- Fair
- Trusted
- Value-based decisions
- Team member & customer commitment
- Vision & inspiration

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Safety Culture Definitions

- The product of individual & group values, attitudes, perceptions, competencies, & patterns of behavior that can determine commitment to & style & proficiency of agency's safety management system. (FTA Transit Advisory Committee-TRACS)
- An agency's shared values, norms, & perceptions expressed as common expectations, assumptions, & views of rationality that play a critical role in safety. (FRA)
- That assembly of characteristics & attitudes in agencies & individuals which establishes that safety issues are an overriding priority & receive the attention warranted by their significance. (International Nuclear Safety Group-INSAG)

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Safety Culture Definitions

- An agency's values & behaviors modeled by its leaders & internalized by its members that make safe performance of work the overriding priority. (DOE)
- Shared values & beliefs that interact with a company's people, organizational structures, & control systems to produce behavioral norms. (Utta)
- Shared values, norms, & behaviors about minimizing risk, respect toward safety, & technical competence shared by individuals & groups who place a high premium on safety as a priority. (Eiff)

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Our Working Definition

Safety culture is shared values, beliefs, & attitudes that interact with all system members, safety policies, procedures, & rules to produce behavioral norms.

-- Improving Safety Culture in Public Transportation, TCRP Report 174

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Why Positive Safety Culture is Important

- Is a core value
- Impacts safety record
- Affects transit agency performance
- Reduces operating & maintenance costs
- Improves efficiency
- Establishes agency priorities
- Affects public perception

Every agency has a safety culture, but not necessarily a positive one

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Positive Safety Culture Components

1. Safety is highest organizational priority
2. Adequate training
3. Open, frequent, & effective safety communication
4. Adequate financial & human resources
5. Management / employees willing to interrupt schedules & service for safety reasons

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Positive Safety Culture Components

6. Organizational capability to draw appropriate conclusions from safety information
7. Agency takes action on all reported safety issues
8. Agency collects & analyzes relevant data
9. Employees involved in continuous improvement of safety policies & rules
10. Culture of safety deeply ingrained within organization

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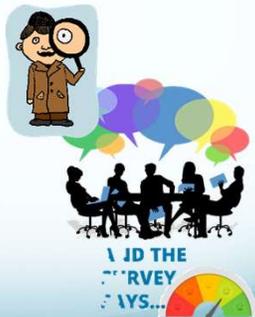
Positive Safety Culture Components

11. Accidents reviewed from perspective of future prevention
12. High level of trust between management & frontline staff
13. Employees encouraged to report safety issues & near misses
14. Union is continually involved in safety processes as full partner
15. Employees rewarded for reinforcing safety

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Assessing Existing Safety Culture

- Direct observation
- Interviews
- Focus groups
- Surveys



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10 Things to Look for During Safety Culture Assessment

1. Leadership is clearly committed to safety
2. The agency practices continuous learning
3. Decisions demonstrate that safety is prioritized over competing demands
4. Reporting systems & accountability are clearly defined
5. There is a safety conscious work environment

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10 Things to Look for During Safety Culture Assessment

6. Employees feel personally responsible for safety
7. There is open & effective communication across the agency
8. Mutual trust is fostered between employees & the agency
9. The agency is fair & consistent in responding to safety concerns
10. Training & resources are available to support safety

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Transit Safety Culture Challenges

1. Frequent turnover of transit executive management
2. Danger of executive leadership solidifying decision making & power in a few individuals at top of org chart
3. Lack of direct input into executive decision making from employees tasked with safety responsibilities
4. "We versus they" labor-management relationships
5. Placing blame downward in the organizational structure

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Transit Safety Culture Challenges

6. "Stove piping" that creates multiple cultures by mode & function
7. Poor communication up, down & across the organization
8. Near misses are not captured, analyzed & acted upon
9. Frontline operations & maintenance supervisors not empowered to make safety-related decisions
10. Unable to execute timely response to safety risks due to structural rigidity

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Transit Safety Culture Challenges

11. Limited financial & human resources
12. Management lacks understanding
13. Aging equipment & infrastructure
14. Danger of rapid service delivery growth
15. Lack of emphasis on & resources for safety training

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Why Transit is Ready for Safety Culture Development

Increased:

1. National government emphasis on transit safety
2. Public awareness of importance of transit safety
3. Awareness of transit safety deficiencies
4. Pressure on transit management to appear proactive in enhancing organizational safety
5. Availability of enhanced technological tools to reinforce safety within transit operations

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Why Transit is Ready for Safety Culture Development

Increased:

6. Empowerment for frontline management & supervisors to implement safety
7. Need for union leadership to work in partnership with management
8. Knowledge of generic, non-transit related safety culture models

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Safety Management Requires a Positive Safety Culture

A positive safety culture contributes to successful safety management.

- Safety management requires:
 - High levels of trust
 - Frequent & open communication
 - Empowerment of frontline employees
 - An effective employee safety reporting program
 - Frontline employee subject matter expertise

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Steps to Cultivate a Positive Transit Safety Culture

1. Agency mission & purpose – emphasizes safety
2. Safety – the paramount transit agency core value
3. Leadership – committed to safety
4. Resources – required to support safety culture
5. Define – safety roles & responsibilities throughout the organization

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Steps to Cultivate a Positive Transit Safety Culture

6. Benchmarks – high levels of safety performance
7. Benchmarks – monitored & enforced
8. Empower – frontline supervisors & employees
9. Comprehensive training initiatives – safety skill proficiency
10. Employee skills – important & respected

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Steps to Cultivate a Positive Transit Safety Culture

11. Communication – open & effective
12. Mutual trust – labor & management
13. Labor management safety committees
14. Employee safety reporting program
15. Confidential, non-punitive close-call reporting system

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Steps to Cultivate a Positive Transit Safety Culture

16. Proactive hazard identification processes
17. Effective risk assessment & mitigation procedures
18. Management feedback on resolved safety concerns
19. Organizational environment – regularly monitors safety performance
20. Immediate response – safety-related deficiencies

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Strategies to Promote & Maintain a Positive Safety Culture

Managers:

- Walk the talk & provide necessary resources
- Be highly visible
- Start all leadership meetings with safety issues discussion

Managers/Supervisors :

- Take responsibility for failure
- Communicate all safety-related changes to frontline

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Strategies to Promote & Maintain a Positive Safety Culture

Supervisors:

- Catch employees doing something right
- Coach / counsel to improve
- Understand & accept that humans make mistakes
- Don't see yourselves as cops

Accident investigators:

- Conduct root cause analysis

Dispatchers /control center staff:

- Guide operators during emergencies

Recruiters:

- Search for applicants with safety commitment
- Base applicant selection – potential safe performance

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Strategies to Promote & Maintain a Positive Safety Culture

Administrative staff:

- Ride buses & thank operators
- Empower the safety committee
- Make team building front & center
- Reward employee safe performance
- Fully partner with union on safety initiatives

- Constantly encourage use of employee safety reporting program
- Listen to, empower, & give frontline employees ownership in safety
- Involve frontline subject matter experts in safety decision-making

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Strategies to Promote & Maintain a Positive Safety Culture

Administrative staff:

- Communicate that service delivery never more important than safety
- Evaluate changes for safety risk before implementing
- Emphasize training

Employees:

- Need authorization to immediately pause & review activity that can harm people
- See safety as win-win
- Hold safety meetings regularly
- See safety as a responsibility

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Strategies to Promote & Maintain a Positive Safety Culture

- Analyze adverse & positive events
- Policies & procedures
- Clearly define safety roles & responsibilities for all
- Capture & share safety-skill information



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Safety Culture & Communication

Communication styles affect safety culture:

- **Dominant** – run people over, believe they are never wrong, damage morale
- **Passive** – indirect and meek, don't express true feelings, retreat from conflict, hinder open communication
- **Passive-aggressive** – go behind people's backs, appear to agree when they don't, create lack of trust, diminish job performance
- **Empathetic** – interact effectively with others, respect others' opinions, work to boost morale, leads to better decision-making & performance

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Safety Management Review

Safety Management Components

- Safety Management Policy
- Safety Risk Management
- Safety Assurance
- Safety Promotion

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Safety Management Policy



- Establishes organizational structures & accountabilities
- Defines executive leadership commitment to provide resources to meet safety objectives
- Institutionalizes employee safety reporting program
- Establishes safety roles & responsibilities
- Sets the foundation for a positive safety culture

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Safety Risk Management

Looks into the future



- Conducts proactive activities to identify safety hazards
- Defines criteria for safety risk evaluation
- Develops strategies to mitigate safety risks
- Provides management with safety priorities to be addressed

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Safety Assurance

Controls the present



- Verifies the effectiveness of safety risk mitigations
- Monitors **organizational & individual** safety performance
- Generates **proactive** data for organizational safety performance
- Supports the management of change

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Safety Promotion



- Ensures organization-wide safety management communication
- Defines safety management training to relevant personnel
- Ensures relevant personnel are trained on SMS roles & responsibilities
- Supports the evolution of the agency's safety culture

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Links between Safety Culture & Safety Management

Safety culture

- Affects Safety Management Policy
- Is critical to:
 - Hazard identification & safety risk assessment & mitigation
 - Safety performance monitoring & measurement
- Affects safety promotion strategies

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The Organizational Accident

Two realities of accident causation:

- Accidents are result of individual failures
 - Actions or inactions of people
- Accidents are result of organizational failures
 - Actions or inactions of organizations

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Organizational Accident Definition

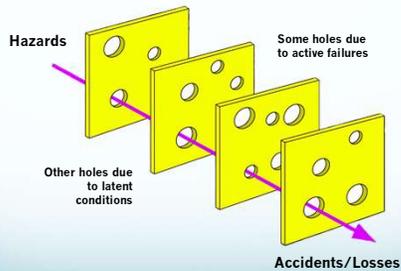
Organizational accidents have multiple causes involving many people operating at different levels of their respective companies.”

Professor James Reason,
*Managing the Risks of
Organizational Accidents*



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Swiss Cheese Model



[NHP Safety Blog](#)

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Latent Organizational Failures

- Lack of top-level management safety commitment or focus
- Conflicts between production & safety goals
- Poor planning, communications, monitoring, control or supervision
- Organizational deficiencies leading to blurred safety & administrative responsibilities
- Deficiencies in training
- Poor maintenance management or control
- Monitoring failures by regulatory or safety agencies

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Discovery of Human Error

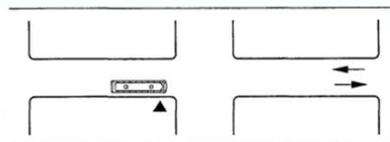
“The discovery of human error should be considered the starting point of the investigation, not the ending point.”

· International Society of Air Safety Investigators (ISASI) Forum

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Transit Example of Organizational Accident

- Near-side bus stop accident



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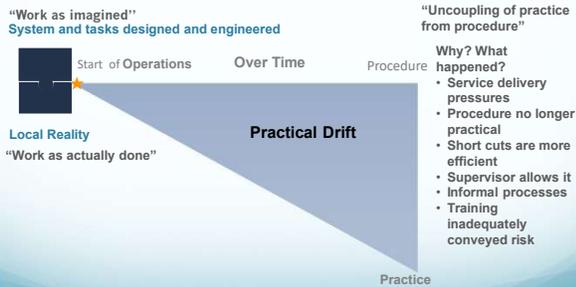
Unmasking Practical Drift

Practical drift definition:

- A drift from the performance of work as imagined to performance of work as it is actually carried out
- The slow but steady uncoupling between procedure & practice during transit operation

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Practical Drift



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Reasons for the Drift

- Technology that does not always operate as advertised
- Procedures that cannot be executed as planned under real time conditions
- Unmanaged change in operating conditions
- Addition of new components to the operation
- Under-evaluation of problems that changes to components introduce
- Front-line employee shortcuts to procedures
- Unforeseen consequences of shortcuts

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Importance of Practical Drift

- Shortcuts to procedures or practices may seem harmless & efficient but one small change could have damaging impact
- Controlling practical drift involves learning about & eradicating unsuccessful shortcuts & adaptations
- Can also learn about successful shortcuts & adaptations & integrate into safety management activities

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Transit Example of Practical Drift

- Pre-trip inspection

No	Item	Remarks	OK	Not OK	Remarks
1	Engine				
2	Oil level				
3	Water level				
4	Brakes				
5	Steering				
6	Tires				
7	Wipers				
8	Light				
9	Signal				
10	喇叭				
11	后视镜				
12	安全带				
13	灭火器				
14	急救箱				
15	行驶证				
16	驾驶证				
17	保险单				
18	其他				

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Employee Safety Reporting

Types of employee safety reporting:

- Mandatory
- Voluntary
- Front-line personnel are best source of safety information since they observe safety hazards as part of their daily activities
- Accurate & timely reporting of safety hazards, issues, concerns, & near misses or close calls
- Information from employees supports safety analysis & risk mitigation

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Effective Reporting System Elements

- **Information** – Creates knowledge of human, technical, & organizational factors that determine system safety
- **Flexibility** - Employees faced with unusual circumstances adapt reporting method so information quickly reaches appropriate decision making level
- **Learning** - Management has information to draw conclusions to implement major reforms
- **Accountability** - Employees encouraged & rewarded for providing safety-related information (differentiation between acceptable/unacceptable behavior)
- **Willingness** - to report hazards, concerns, & experiences

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Near Miss / Close Call Reporting

- Why it's needed
- How it happens
- Challenges in making it happen

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Safety Reporting Methods

- Safety reporting form
- Hotline
- Verbally to supervisor or dispatcher
- Identified versus anonymous reporting
- Other?

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Defining Safety Risk Management

Safety risk management is processes, activities, & tools to:

- Identify & analyze hazards associated with service delivery
- Evaluate safety risk in operations & supporting activities
- Support the prioritization of resources to address potential consequences of hazards

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Proactive / Reactive Safety Risk Management Activities

- Use proactive & reactive sources to identify safety issues & concerns
 - Proactive source example - employee safety reporting
 - Reactive source example - accident investigation
- Ongoing safety risk management activities
 - Identify & evaluate safety hazards & concerns
 - Put mitigations into place to manage safety risk

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Safety Risk Management Outcomes

Safety risk management helps a transit agency

- Examine what could cause harm
- Determine whether it has taken sufficient precautions to minimize the harm
- Determine if further mitigations are necessary

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Safety Culture & Hazard Identification

Sources for hazard identification:

- Employee safety reporting program
- Observations of operations
- Audits & inspections
- Accident & incident reports
- Accident & incident causal analysis
- Customer / public feedback or complaints
- Compliance programs
- Committee reviews
- Industry data
- Government

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Performing Hazard Analysis

- Involve subject matter experts
- Identify safety deficiencies
- Identify safety hazards
 - Analyze hazards for their consequences

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Role of Safety Culture in Supporting Hazard Identification

- A strong safety culture empowers a transit agency at all levels to understand & proactively control safety risk to ensure safety of passengers & employees
- Safety culture affects employee involvement & empowerment in identifying hazards & reporting safety concerns

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Safety Culture & Safety Risk Assessment

Safety risk assessment steps:

- Involve subject matter experts
- Express safety risk probability
- Express safety risk severity
- Evaluate current mitigations
- Prioritize safety risk
- Determine level of safety risk acceptability

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Safety Culture & Safety Risk Mitigation

Safety risk mitigation steps:

- Involve subject matter experts
- Create or revise safety risk mitigations to reduce
 - likelihood of potential hazard consequences
 - severity of potential hazard consequences
- Goal of safety risk mitigation activities:
 - Manage safety risk to acceptable level by implementing mitigations & making sure they work

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Safety Culture & Safety Performance Monitoring

The safety performance monitoring process includes:

- Subject matter experts perform monitoring activities
- Field observations of service design & delivery
- Field observations of vehicle & facility maintenance activities
- Monitoring internal SOPs & external requirements
- Monitoring safety issues reported through employee safety reporting program
- Using safety audits, studies, reviews, & inspections
- Evaluating effectiveness of safety risk mitigations

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Safety Culture & Management of Change

- Safety impact of changes
- Identifying changes
- Evaluating changes
- Criteria for management of change

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Importance of Continuous Improvement

- Evaluate/measure agency safety culture & safety performance
 - At least annually
 - Use safety performance measures & targets
 - Use audits, reviews, assessments, & other verification
- Address safety deficiencies & sub-par performance
 - May include re-engineering processes & procedures

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Wrap Up – Action Steps

- Building a safety culture
- Implementing a safety management system

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**Thank you for attending.
Appreciate all you do!**



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