

Presentation
Safety Management Systems

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Safety Management Systems

- NSC/ARTEX:
Safety Management Systems
March 2004 – Revision
- IATA:
AHM 610
Guidelines for a Safety Management System
AHM 621
Recommendation for Risk Management
Programs

NSC/ARTEX SMS

Continuous Improvement Cycle

- Policy
- Planning
- Implementing
- **Measuring**
- Reviewing and Improving

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NSC/ARTEX SMS

Safety Programs

- Management Leadership and Employee
- Participation
- Worksite Analysis
- **Hazard Prevention and Control**
- Training and Communication

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NSC/ARTEX SMS

Support Systems

- Organizational Structure
- Documentation
- Audits and Periodic Reviews
- Organizational Structure

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IATA

Safety-focused sections from the 26th Edition of the Airport Handling Manual

- **AHM 600 Airside Management and Safety**
- **AHM 610 Guidelines for a Safety Management System**
- AHM 611 Airside Safety Training
- AHM 613 Aircraft Handling Personnel, Responsibilities and Qualifications
- **AHM 614 Airside Driver Training**
- AHM 620 Guidelines for an Emergency Management System

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IATA

Safety-focused sections from the 26th Edition of the Airport Handling Manual

- **AHM 621 Recommendations for Risk Management Programs**
- AHM 630 Safe Operating Practices in Aircraft Handling
- AHM 631 Safety Considerations for Aircraft Movement Operations
- AHM 634 Passenger Boarding Bridge Operation

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IATA

Safety-focused sections from the 26th Edition of the Airport Handling Manual

- AHM 635 Foreign Object Damage (FOD) Prevention Program
- AHM 651 Recommendations for Airside Safety Investigations
- AHM 652 Human Factors in Airside Safety Investigations

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The 10 Elements of a SMS (AHM 610)

1. Safety Guideline / Target (3.1,2,)

are the start of any safety improvement

2. Safety Organization (3.4)

defines responsibilities and competencies

3. Training, Instruction, Information (3.5)

allows to work safe

(AHM 614: Airside Driver Training)

4. Safety Rules and Regulations (3.6)

sets the guidelines / standard operating proc.

The 10 Elements of a SMS (AHM 610)

5. Dangers / Risk Management (3.8)

shows, where it may become dangerous

Systematic Accident Investigation

6. Measures: Planning & Performance (3.10)

eliminates and reduces dangers

7. Emergency Organization (3.11)

helps to reduce the scope of damage

The 10 Elements of a SMS (AHM 610)

8. Forced Contribution

Human Factors (3.7)

involves the ones affected

9. Health Protection

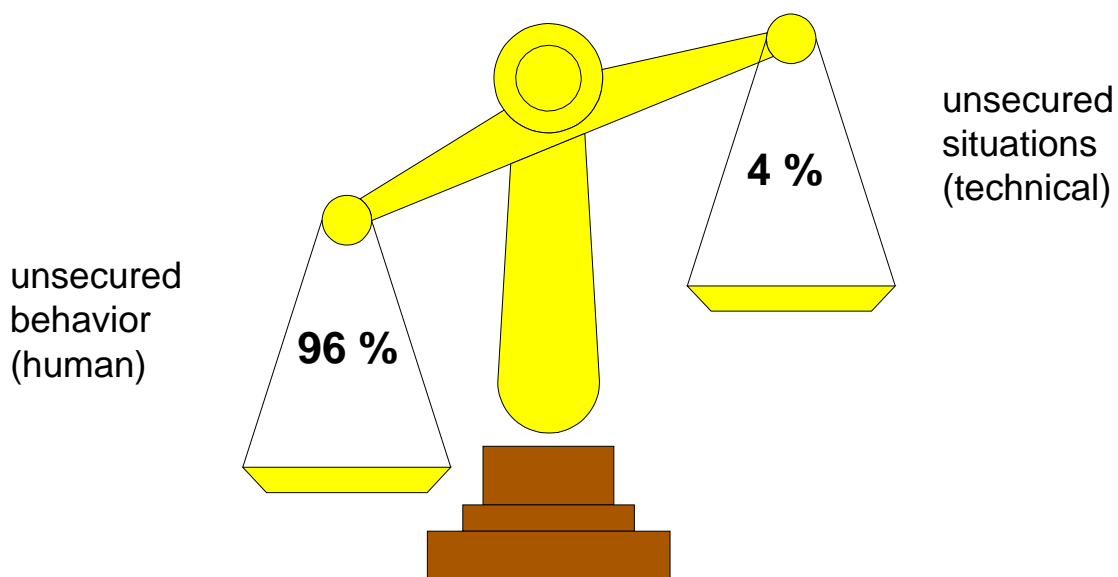
often forgotten but very important

10. Audits and Inspections (3.9)

proves, if the targets are achieved

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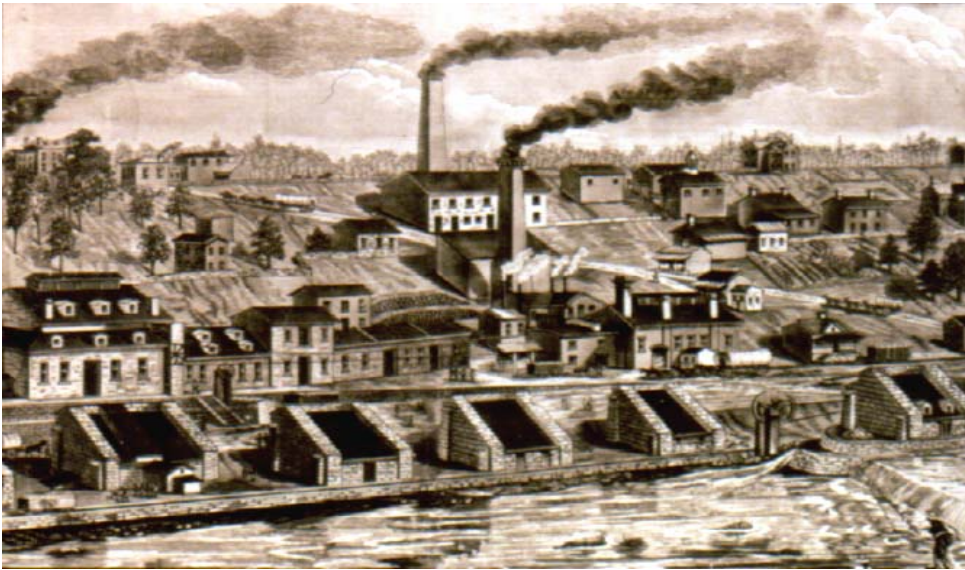
Reason for Accidents



Safety is a matter of attitude

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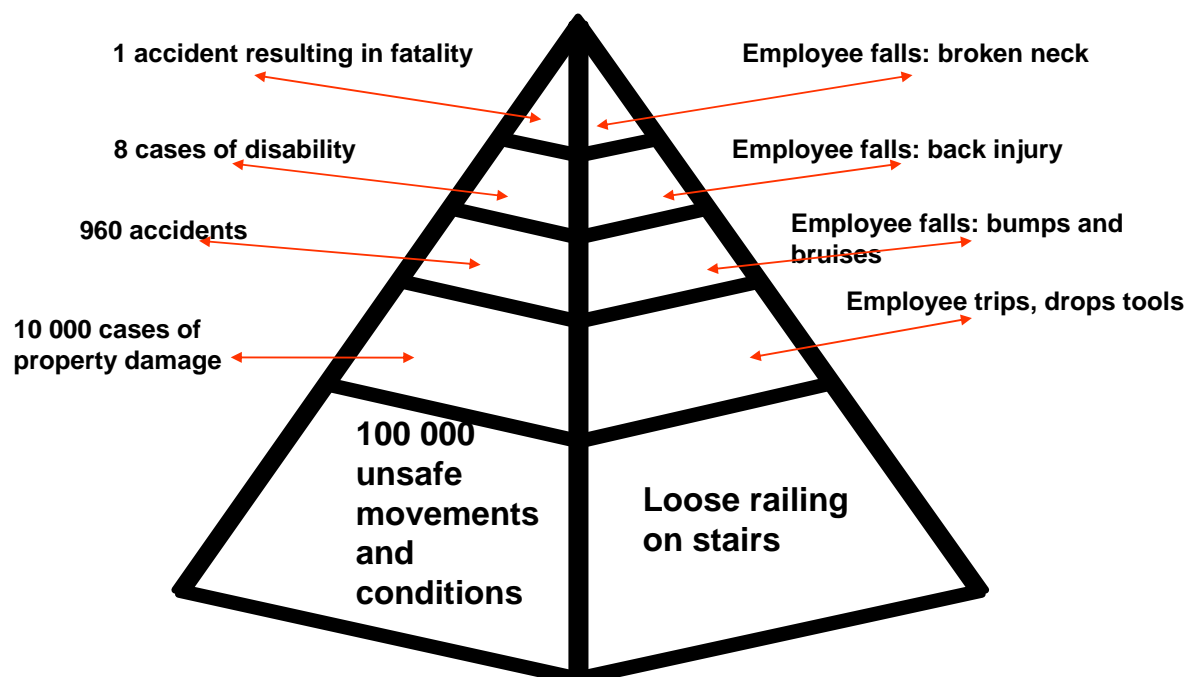
DuPont Powder Mills on the
Brandywine River Delaware - Anno 1811



**Explosion
1818**

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Accident Pyramid



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Risk Assessment / Risk Control

- What are the highest risk tasks at your workplace?
- Take your accident statistic as an indication!

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Highest Risk?

Fall

- Docks, especially temporary docks
- Workplatforms
- Stairs

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High Risk: Fall



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High Risk: Fall



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Fall Protection: Recommendations

- Work only with safe stairs, ladders and platforms
- Release docks with a safety check before you perform any work
- Use suitable and correct stair
- Use handrail

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Painting Process



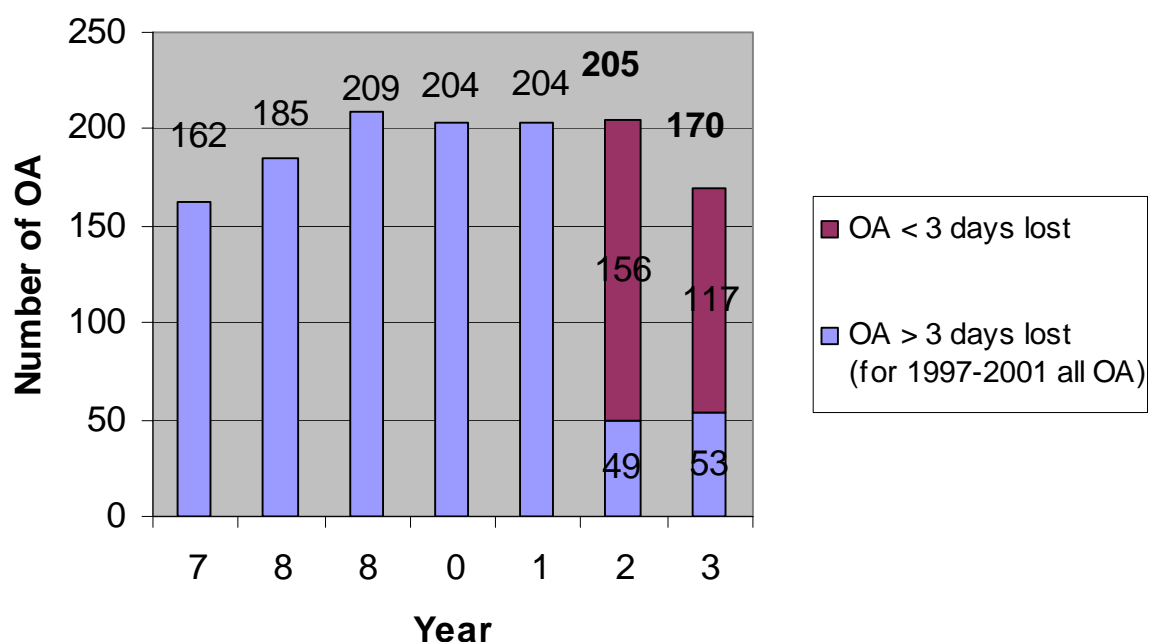
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Accident Investigation

- **Systematic accident investigation**
for OA > 3 calendar days absent time:
Investigation-Report with measures.
- **Learn from each accident:**
Always with measures, to avoid any similar accidents.
- **Potential for improvement:**
Involve management and employees to
avoid accidents: Part of the qualification
system!

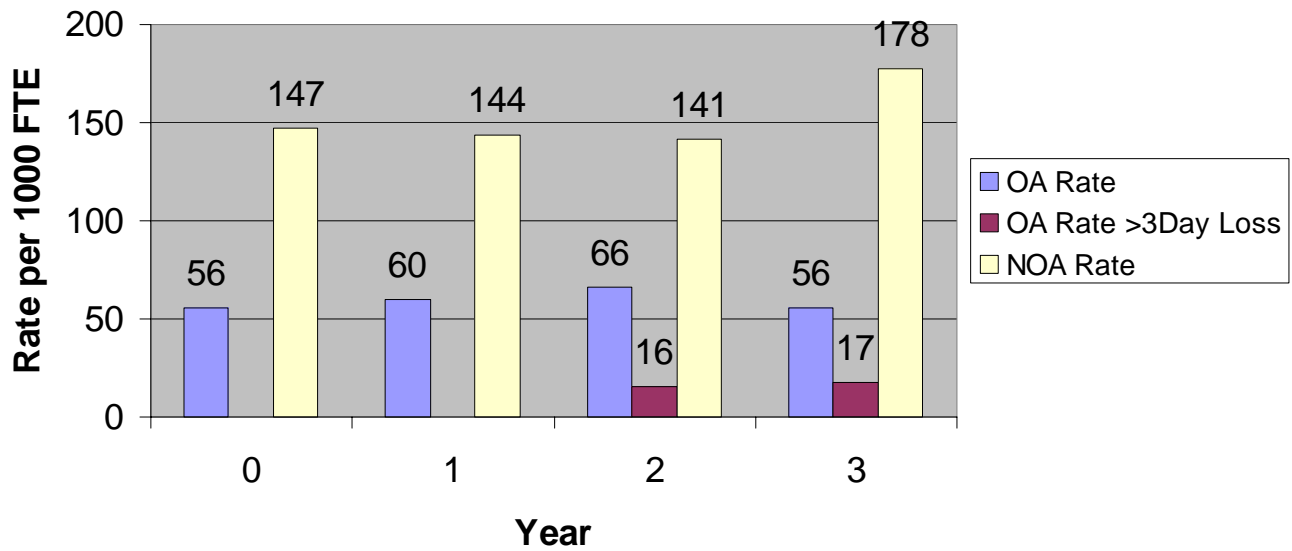
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Occupational Accidents



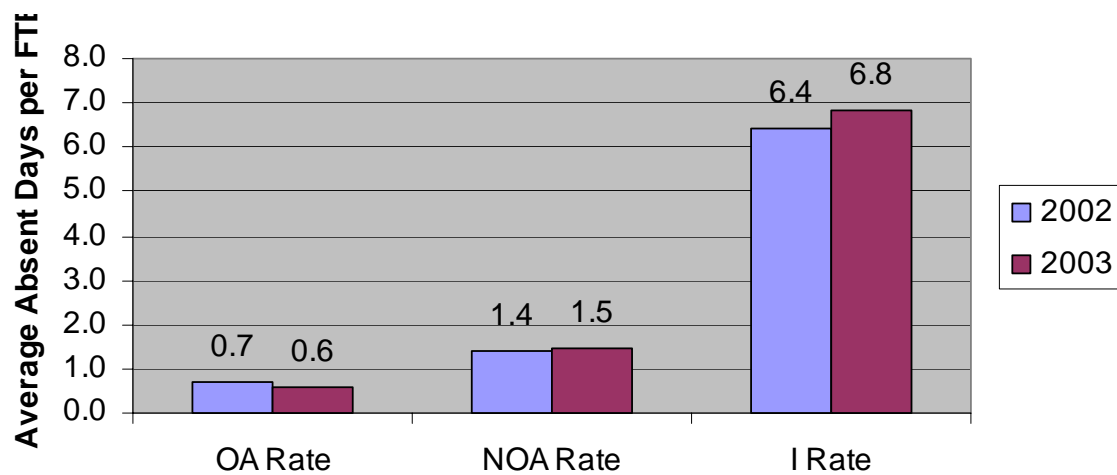
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Accident Rates



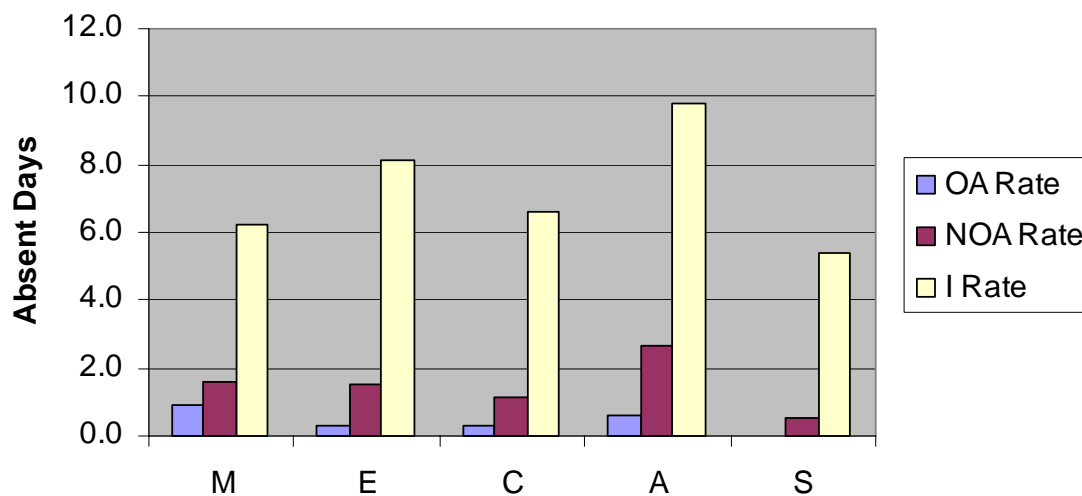
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Average Absent Days per FTE Year x and Year Y



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Average Absent Days per Employee per Year



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Systematic Accident Investigation

- **Investigation Form** (CH: Suva Nbr. 66100/1)
- Investigation by Manager
- Measures: Responsible Person / Target
- Consulting by Competence Center
- Investigation Report to Executive Mgmt
- AHM 650: Ramp Incident/Accident Report
- AHM 651: Recommendations for Airside Safety Investigations

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Risk Management / Assessment Programs

- **EN 1050 Safety of Machinery**
- **AHM 621:**
 - Hazard Identification
 - Risk Assessment
 - Risk Control
- **Risk Assessment (Safe - Unsafe) Matrix**

CH: www.suva.ch

Nbr. 66099.d/.f/.i

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Risk Matrix

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Likelihood (L) or Probability (P)
that an accident/damage occurs

often (5) (> 1 per day / < 1 per month)	5	10	15	20	25
occasionally (4) (> 1 per month / < 1 per year)	4	8	12	16	20
possible (3) (> 1 per year / < 1 per 5 years)	3	6	9	12	15
unlikely (2) (> 1 per every 5 years / < 1 per every 20 years)	2	4	6	8	10
practically impossible (1) (> 1 per every 20 years / < 1 per every 100 years)	1	2	3	4	5
Rating 15-25 (red area): Substantial risk, safety is not ensured. Enhanced protective measures are urgently required. Rating 8-12 (yellow area): High risk, safety is not ensured. Protective measures are urgently required. Rating 4-6 (green area): Medium risk, safety is partially guaranteed. Normal protective measures are required. Rating 1-3 (white area): Small risk, safety is largely guaranteed. Organizational and staff-related measures may be required.	(1) insignificant No or minor injuries (first aid treatment) and/or negligible property damage	(2) minor Minor injury or occupational illness resulting in lost work days and/or minor property damage	(3) moderate Serious but non-permanent injuries and/or significant property damage	(4) critical Permanent disability or occupational illness and/or major property damage	(5) catastrophic May cause death or loss of property

Severity (S) or Scope of Damage (D) WPF1 10.05.06

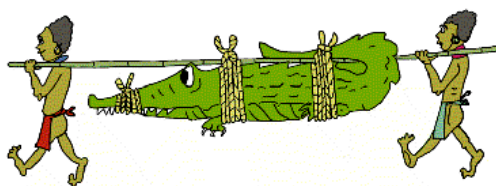
Employer / Responsible Manager could go to Court

Worst case scenario: Severe accident of an employee. Possible questions of a judge:

- Are there existing rules and regulations, standard operating procedures, state of the art equipment, etc. available?
- Has employee been properly instructed and trained? Are training records available?
- Has employer provided PPE for employee?
- Are rules and regulations enforced by management?

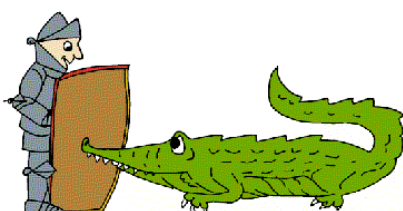
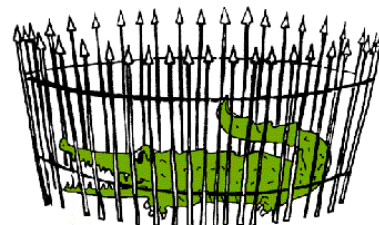
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Minimize Risks



Remove Danger

Shield Danger



Protect yourself

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Building Safety Competence

Safe Behavior and Application of Safety Instructions and Manuals (AHM, etc.)

