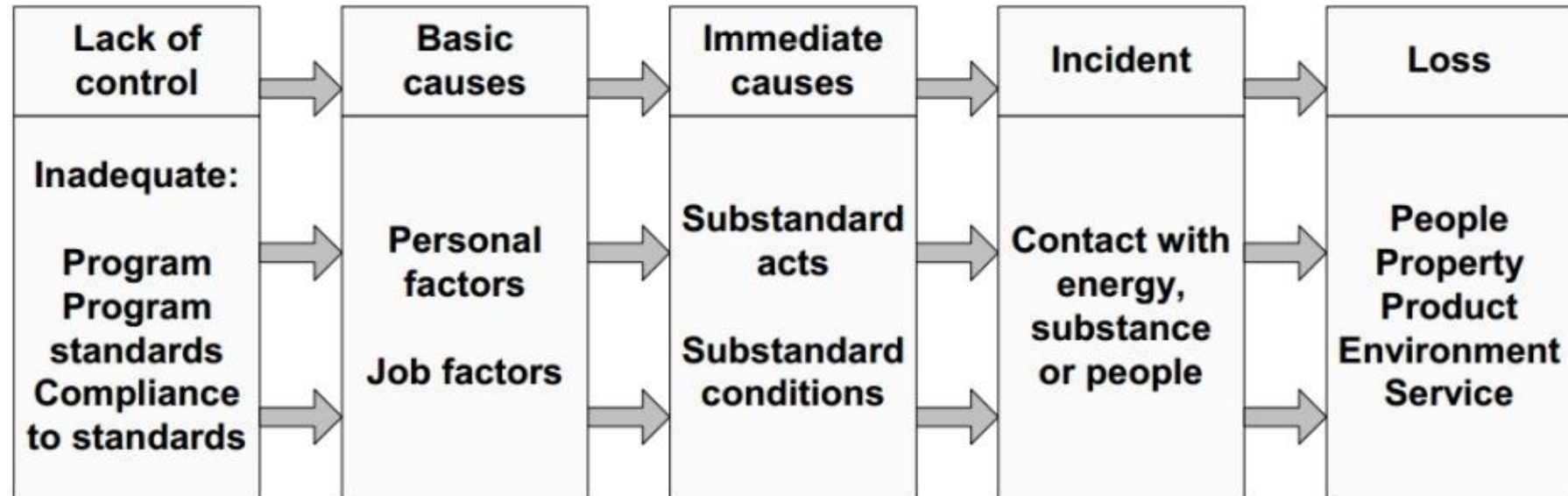


SCAT-Systematic Cause Analysis Technique



The ILCI Loss Causation Model (Bird and Germain, 1985).

Immediate Causes

Substandard practices/acts	Substandard conditions
<ol style="list-style-type: none">1. Operating equipment without authority2. Failure to warn3. Failure to secure4. Operating at improper speed5. Making safety devices inoperable6. Removing safety devices7. Using defective equipment8. Using equipment improperly9. Failing to use personal protective equipment10. Improper loading11. Improper placement12. Improper lifting13. Improper position for task14. Servicing equipment in operation15. Horseplay16. Under influence of alcohol/drugs	<ol style="list-style-type: none">1. Inadequate guards or barriers2. Inadequate or improper protective equipment3. Defective tools, equipment or materials4. Congestion or restricted action5. Inadequate warning system6. Fire and explosion hazards7. Poor housekeeping, disorderly workplace8. Hazardous environmental conditions9. Noise exposures10. Radiation exposures11. High or low temperature exposures12. Inadequate or excessive illumination13. Inadequate ventilation

Basic Causes

Personal factors	Job factors
<ol style="list-style-type: none"> 1. Inadequate capability <ul style="list-style-type: none"> - Physical/physiological - Mental/psychological 2. Lack of knowledge 3. Lack of skill 4. Stress <ul style="list-style-type: none"> - Physical/physiological - Mental/psychologica 5. Improper motivation 	<ol style="list-style-type: none"> 1. Inadequate leadership and/or supervision 2. Inadequate engineering 3. Inadequate purchasing 4. Inadequate maintenance 5. Inadequate tools, equipment, materials 6. Inadequate work standards 7. Wear and tear 8. Abuse or misuse

Lack of Control

Elements in a safety program	
<ol style="list-style-type: none"> 1. Leadership and administration 2. Management training 3. Planned inspection 4. Task analysis and procedures 5. Accident/incident investigation 6. Task observations 7. Emergency preparedness 8. Organisational rules 9. Accident/incident analysis 10. Employee training 	<ol style="list-style-type: none"> 11. Personal protective equipment 12. Health control 13. Program evaluation system 14. Engineering controls 15. Personal communications 16. Group meetings 17. General promotion 18. Hiring and placement 19. Purchasing controls 20. Off-the-job safety