



Risk assessment

- Risk assessment
- HSE non-conformities





What is risk?

- A risk– possibility of losing something of **value.**



Colourbox



What is Risk assessment

- Risk assessment is a systematic review of what might cause undesirable incidents and what consequences these may have for the working environment.
- A risk assessment must also identify measures that form a basis for reducing risk.
- A risk assessment can improve safety in the working environment.

Why risk assess?

To prevent:

Hazards/problems for people, material or the environment.

→ To be able to take measures that improves safety



Colourbox





Why risk assess?

- The most important thing about risk assessment is to prevent injury or illness due to the job or studies.
- In addition, we want to protect our other values. We risk assess to get an overview of the hazards and unwanted incidents of employees, students at UiB.
- Employees or students may be exposed to dangers in the work and learning environment that may have consequences for their health. The dangers can also have consequences for the university in the form of absence, loss of production or reputation loss.
- We want to know the probability of an unwanted event to occur, and what we can do to prevent it from happening.



Who will carry out a risk assessment?

- Simple risk assessments can be carried out by individuals.
- More comprehensive risk assessments should be conducted by an analysis group. The group can consist of 5-7 people with expertise in the process, activity, or object to be considered.

Your responsibility:



Contributing to risk assessments
and in carrying out measures.



Prevent what?

An
undesirable
incident





Key points in a simple risk assessment:

- What can go wrong?
- What can we do to prevent it?
- What can we do to reduce the consequences if it happens?



Colourbox

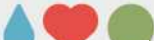


2. Risk analysis - a creative process

- What are the **undesirable incidents**?
- What are the **causes**?
- What is the **probability**?
- What are the **consequences**?



Colourbox



Principle of Crocodile

Identify the risk



© GE HealthCare

Principle of Crocodile

- Eliminate the risk



© GE HealthCare

Principle of Crocodile

Substitute the risk



© GE HealthCare

Principle of Crocodile

- Isolate the risk



Principle of Crocodile

Use Personal Protective Equipment



© GE HealthCare

Principle of Crocodile

Or else.....Run Away!!!

Don't Do It!!!



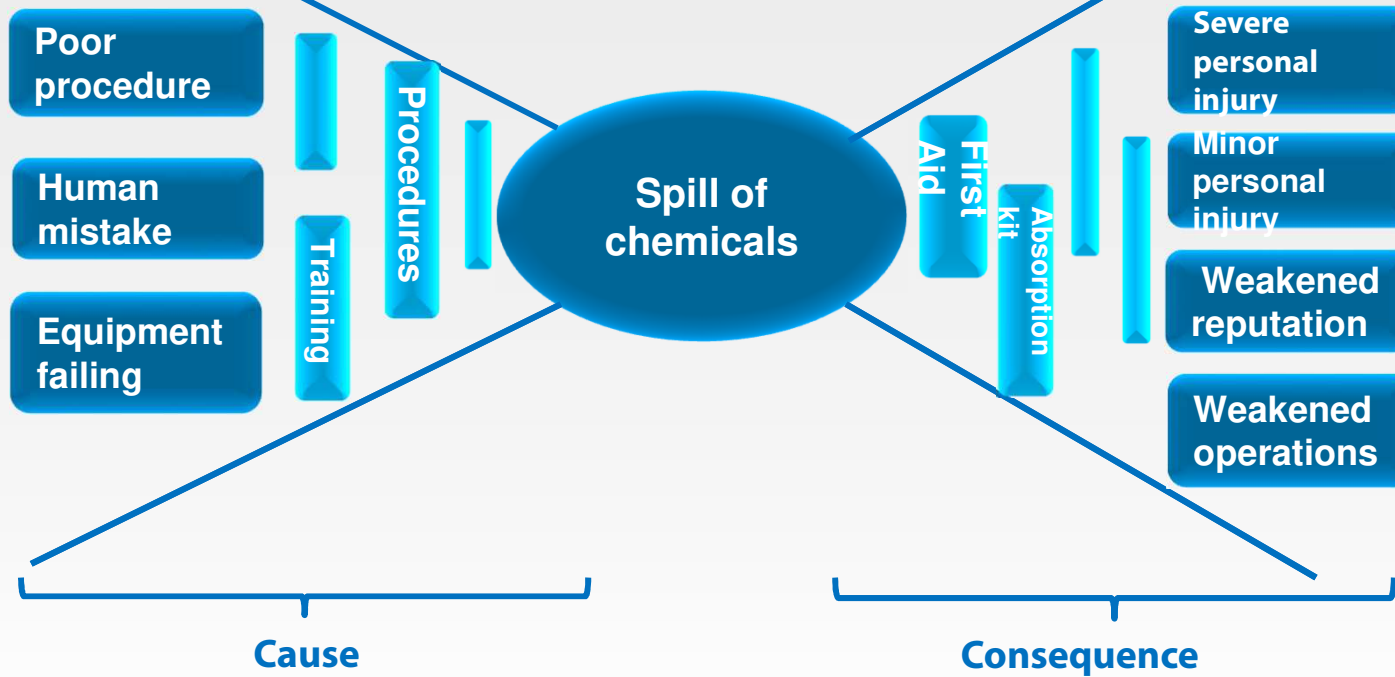
© GE HealthCare

29.09.17

Pictures: GE health care/google

SEKSJON FOR HMS, BEREDSKAP OG BHT

Risk assessment «Bow tie»



Risky business



29.09.17

SEKSJON FOR HMS, BEREDSKAP OG BHT



How to risk assess?

Secure job analysis

Risk assess using matrix

Risk assess using electronic system




Secure job analysis – a simple method

- Identify hazards with a work operation you are going to perform
- Based on a check list → go through the list before start working
- Divide the work into sections → what can go wrong?

Secure job analysis



	FORM FOR SECURE JOB ANALYSIS			Theme: Risk assessment	
				Date: 28.09.17	
				Page: of	
				of	
Unit:				Date:	
Responsible:				Number of pages:	
Performed by:					
Describe the work/process:					
Any prerequisites for the work/process:					
Subtasks/subdivisions:	Identification of undesirable incidents/ hazard sources	Measures:	Responsible / deadline	Done	
Is the total risk acceptable (Yes/No)?:			Final date/ signature:		
Conclusions/comments/notes:					



Risk assessment

- Using a matrix
- Using risk acceptance criteria for probability and consequence
- Can be performed using paper, excel-sheet, etc
- Can also be performed using an electronic risk assessment system



Matrix for risk acceptance criteria in the HSE-field

01.06.15



Consequence

	1 No risk	2 A certain risk	3 Risky	4 Critical	5 Disaster
5 Highly probable	Yellow	Red	Red	Red	Red
4 Very probable	Green	Yellow	Red	Red	Red
3 Probable	Green	Green	Yellow	Red	Red
2 Improbable	Green	Green	Green	Yellow	Red
1 Highly improbable	Green	Green	Green	Green	Yellow



	Risk acceptance criteria for probability and consequences in the HSE field	01/06/2015
---	---	------------

Criteria for probability

	Description/frequency
5	Highly probable Occurs daily/weekly
4	Very probable Occurs weekly/monthly
3	Probable Occurs every 6 months/year
2	Improbable Occurs less often than once per year
1	Highly improbable Occurs less often than every 10 years/has never occurred

Criteria for consequence

	People	Operation/function at unit	The environment	Material values	Reputation
5	Disaster	<ul style="list-style-type: none"> Primary activity does not work Infrastructure collapses 	<ul style="list-style-type: none"> Irreversible environmental damage Repeated major breach of the law 	<ul style="list-style-type: none"> Financial loss for the unit of over 60 % of working capital 	<ul style="list-style-type: none"> Weakened national and international collaboration and credibility Significantly reduced recruitment Significant reduction in financing
4	Critical	<ul style="list-style-type: none"> Primary activity works poorly Problem in maintaining proper operation 	<ul style="list-style-type: none"> Possible irreversible environmental damage Major breach of the law 	<ul style="list-style-type: none"> Financial loss for the unit of up to 40 % of working capital 	<ul style="list-style-type: none"> Weakened national collaboration and credibility Reduced recruitment Significant reduction in financing
3	Risky	<ul style="list-style-type: none"> Primary activity is reduced Weakened operation 	<ul style="list-style-type: none"> Long-term reversible environmental damage Repeated breach of the law Repeated emissions 	<ul style="list-style-type: none"> Financial loss for the unit of up to 20 % of working capital 	<ul style="list-style-type: none"> Weakened regional collaboration and credibility Reduced recruitment Reduction in financing
2	A certain risk	<ul style="list-style-type: none"> Short-term reduction in operation Redisposition of resources 	<ul style="list-style-type: none"> Short-term reversible environmental damage Single breach of the law Single emission 	<ul style="list-style-type: none"> Financial loss for the unit of up to 10 % of working capital 	<ul style="list-style-type: none"> Weakened local collaboration and credibility Somewhat reduced recruitment Somewhat reduced financing
1	No risk	<ul style="list-style-type: none"> No reduction in operation Does not lead to significant additional impact 	<ul style="list-style-type: none"> No measurable environmental damage 	<ul style="list-style-type: none"> Insignificant financial loss for the unit 	<ul style="list-style-type: none"> No effect on credibility No reduction of recruitment No effect on financing



Electronic risk assessment system

- At UiB we use CIM
- The system combine the probability and consequence of an undesirable incident to find the degree of risk.
- In CIM there are 3 different methods to choose between (rough analysis, simplified analysis and full analysis).
- Outside this system, there are many other methods that can be used.



→ [More about risk assessment at the HSE-gateway](#)



UNIVERSITETET I BERGEN

HSE-SECTION



HSE-non conformities

- HSE non-conformities are all adverse events and/or matters that have resulted or may result in harm to people, the environment and property.



HSE non-conformities



- By reporting **HSE non-conformities** you can help make your working environment safer!



Colourbox.com

HSE non-conformities



HSE non-conformities are all events and/or matters that have resulted or may result in harm to people, the environment and property, such as:

- fires and explosions
- break-in, theft, robbery
- damage to property
- **personal injuries**
- harmful emissions to the environment
- incorrect handling of chemicals, gas, biological agents and sources of radiation
- breaches of HSE legislation, guidelines and routines.