

Participatory strategy for the management of occupational risks

Application to chemical risks

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Summary

- The basic principles
- The SOBANE strategy
- Application to chemicals agents
 - Procedure
 - Screening stage
 - Observation stage
 - Analysis stage
- The role of OH practitioners



7 fundamental principles

1. The qualifications of the partners : workers, management, OH practitioners, experts are complementarity
2. The OH resources limited
A strategy to use them adequately
3. The worker is ACTOR and not assisted
Participative approach
4. All OH problems are linked:
Global approach
5. Prevention > Compliance
Not only comply with the legal values
But search for the optimal stage



Principles

6. Prevention > Evaluation or quantification
No assessment a priori, but a posteriori
“It is not unusual to see more attention given to exposure assessment than to risk prevention.
The fascination exerted by sophisticated equipment and by numbers is, for some reason, greater than the interest in designing pragmatic solutions to prevent exposure“
B. Goelzer (1996)
7. Methods designed for SMEs and not only for the large companies

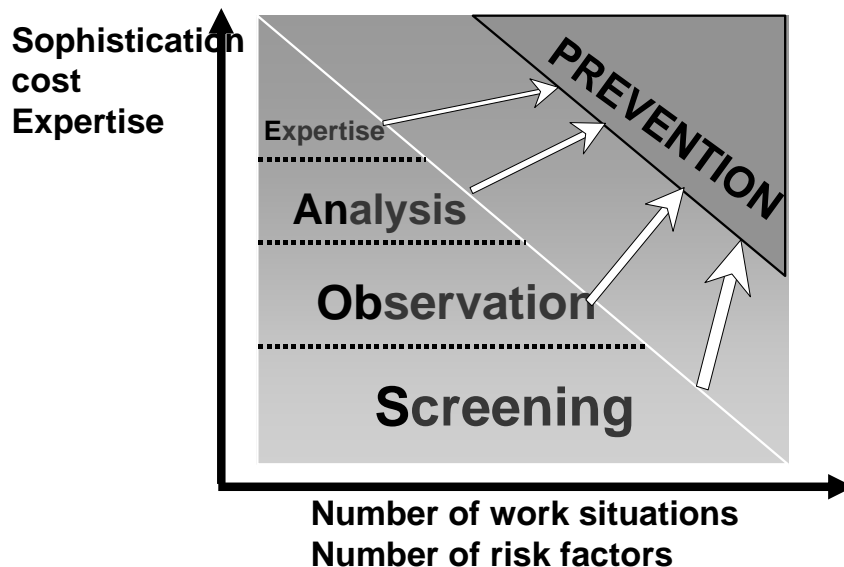


Therefore

- Participation of the workers
- Start from a comprehensive approach
- Progressive approach
- Based on the people in the field
- Objective: the best possible conditions
- Measurements after, not before

	Stage 1 <i>Screening</i>	Stage 2 <i>Observation</i>	Stage 3 <i>Analysis</i>	Stage 4 <i>Expertise</i>
• When?	Systematically	When a "problem" is detected	More complicated Cases	Very complex cases
• How?	Opinions	Qualitative observations	Ordinary measurements	Specialised measurements
• Cost?	Very low	Low	Average	High
• Duration	10 min	2 hours	1 day	A few days
• By whom?	Workers + company management	Workers + company management	Same + specialists	Same + specialists + experts
• Knowledge - working conditions - Hygiene	Very high Low	High Average	Average High	Low Specialised

Prevention Strategy SOBANE



- 1: Social facilities
- 2: Safety (accidents, falls...)
- 3: Machines and hand tools
- 4: Electricity
- 5: Fire and explosion
- 6: Lighting
- 7: Work on VDUs
- 8: Noise
- 9: Thermal environment
- 10: Chemical agents
- 11: Biological agents
- 12: Musculoskeletal disorders
- 13: Whole body vibration
- 14: Hand-arm Vibration

The SOBANE strategy for the prevention of chemical risks

“Operationally validated” in 15 small companies:

- *understood and readily operational*
- *not too long, not too short*
- *leads to solutions at short, medium, long term*
- *optimizes the intervention of the O.H.*
- *saves time and €*

General procedure

1. Information by the direction on the aims and commitment to take account of the results
2. Definition of a small group of workstations forming a unit, a "work situation" (10 to 15)
3. Designation of a coordinator
4. Adaptation of the tools to the work situation
5. Constitution of a working group (4 to 7 people) with
 - key operators designated by their colleagues
 - at least 1 man and 1 woman if mixed group
 - supervisory staff

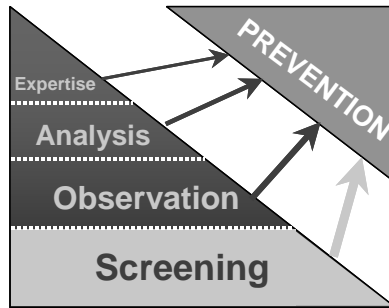
Procedure

6. Meeting of the group in a quiet room close to the working situation
7. Discussion on each heading
 - not to carry a score
 - but to determine
 - what can be made to improve the situation
 - what needs to be discussed ("Observation") more specifically
8. Synthesis by the coordinator
 - The list of the detailed solutions considered
 - The points that need to be studied more in detail
 - Who does what and when?
 - The short term action plan

Procedure

10. Implementation of the action plans at short, medium and long terms
11. Periodically, repetition of the operation
12. Revaluation of the situation and modification of the action plans

Stage 1, Screening



Situation of work:

1. Work areas
2. Technical organization between stations
3. Sites of work
4. Risks of accident
5. Orders and signals
6. Tools and materials
7. Repetitive work
8. Handling operations
9. Mental load
10. Lighting
11. Noise
12. Thermal environments
13. Chemical and biological risks
14. Vibration
15. Relationships between employees
16. Local and general social environment
17. Work content
18. Psychosocial environment

Chemical and Biological risks

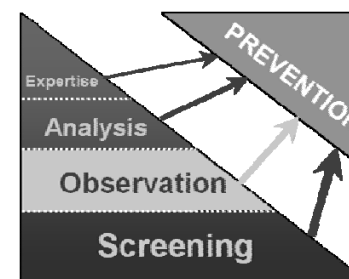
Discuss	Who can do what in practice and when?
<p>The chemical and biological risks</p> <ul style="list-style-type: none"> ✦ The inventory of the products is available and up to date ✦ The documentation on the risks is available <p>Training on the procedures and the risks</p> <p>Procedures</p> <ul style="list-style-type: none"> ✦ Of use: clear and respected (mixtures...) ✦ Respected in the event of an incident (spill, splash...) <p>Labelling adequate and well labelled containers</p> <p>Stocks</p> <ul style="list-style-type: none"> ✦ Toxic, corrosive, flammable, biological... products stored in spaces adapted, isolated and labelled <p>Dusts, chips, oils, vapours...</p> <ul style="list-style-type: none"> ✦ Evacuated (ventilation, aspiration...) without setting in suspension or being dispersed <p>Chemical and biological waste</p> <ul style="list-style-type: none"> ✦ Evacuated in a way controlled according to a known procedure ✦ In adequate containers (dustbins) <p>Signposting</p> <ul style="list-style-type: none"> ✦ Adequate and respected: no smoking, risk areas... <p>Collective protections</p> <ul style="list-style-type: none"> ✦ Showers, wash-hand basins, ocular showers... well located and in good condition <p>Personal protective equipments</p> <ul style="list-style-type: none"> ✦ Gloves, masks, glasses, clothing... ✦ Adequate, available and used <p>Sensitive personnel</p> <ul style="list-style-type: none"> ✦ Women, women pregnant or nursing, young workers... ✦ Monitoring of health <p>Vaccinations: in order</p> <p>Hygiene</p> <ul style="list-style-type: none"> ✦ Nobody eats on the workplace ✦ No mushrooms or moulds <p>Air Renewal: sufficient</p> <ul style="list-style-type: none"> ✦ the air is fresh, pleasant to breathe, without odours <p>Smokers</p> <ul style="list-style-type: none"> ✦ Smoking zones well located and ventilated <p>Aspects to study more in details</p>	

Situation of work: Synthesis of *the Déparis*

- | | |
|--|---|
| 1. Work areas | ☹ |
| 2. Technical organization between stations | ☹ |
| 3. Sites of work | ☹ |
| 4. Risks of accident | ☹ |
| 5. Orders and signals | ☹ |
| 6. Tools and materials | ☹ |
| 7. Repetitive work | ☹ |
| 8. Handling operations | ☹ |
| 9. Mental load | ☹ |
| 10. Lighting | ☹ |
| 11. Noise | ☹ |
| 12. Thermal environments | ☹ |
| 13. Chemical and biological risks | ☹ |
| 14. Vibration | ☹ |
| 15. Relationships between employees | ☹ |
| 16. Local and general social environment | ☹ |
| 17. Work contents | ☹ |
| 18. Psychosocial environment | ☹ |

N°	WHO?	WHAT?	WHEN?	
			Projected	Carried it out
1	Operators	Store the pallets of boxes in the room next to the workshop	/	/
2	Operators	Range the transpallet	/	/
3	Maintenance	Reduce the stock of solvents to 3 bottles	/	/
4	Direction	Regulate the access to the workshop so that only the operators have access	/	/
9	OH practit.	Look for a cutter with retractable blade	To analyze before /	
11	OH practit.	Provide gloves <ul style="list-style-type: none"> to protect from the chemicals resistant to heat for the interventions near the furnace 	To analyze before /	

Stage 2, Observation



Objectifs

To study the work situation
in general
and not on a specific day
concerning the exposure to chemicals

Stage 2, Observation: how?

- Procedure similar to the Screening stage
 - coordinator and working group
 - 2-hour meeting
 - discussion of the items, concentrating on:
 - Checking how the work is done and the problems encountered
 - What can be made directly, in practical terms to improve the situation
 - by whom and when
 - What aspects require the assistance of an OH practitioner at stage 3, Analysis



Stage 2, Observation: the items

1. Brief description of the work situation:
 - Areas where chemicals are used or emitted
 - Locations of the workstations
 - Location of the potentially exposed people
2. Inventory of the products with the R and S phrases
3. Labelling and signposting
4. Elimination of the dangerous products
5. Reduction of the exposure
6. Safety during handling operations
7. General or local ventilation

Stage 2, Observation: the items

8. Occupational hygiene measures
9. Personal protective equipments (PPE)
10. Storage
11. Protection against the fire or explosion hazards and emergency plans
12. Waste management
13. Training and information
14. Medical supervision



6. Safety during handling

Check that:

- There are no leaks through gaskets, taps, valves...
- All chemicals are stored in suitable and safe containers
- Containers for domestic use are never used
- Incompatible chemicals are kept apart in the working area
- There are no flame or heat source nearby when someone uses flammable or combusive chemicals
- Ways and exits are marked and are not congested with waste, pallets, chemicals...
- Transport means, work surfaces, containers, handling operations... are such that the risks to spill or break one container are reduced



- in case of a spill,
-
- the handling of great quantities of chemicals (barrels...) is done safely: ways without obstacles, flat grounds, qualified personnel...

What practical measures can be taken directly to improve the situation?

What needs to be studied more in detail?

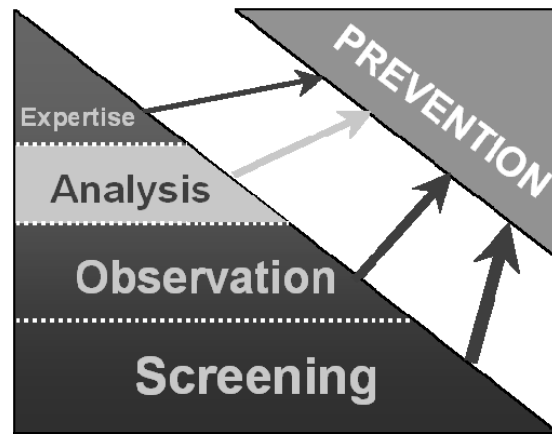


The synthesis

- List of the prevention actions
- Who does what when?
- Assessment of the residual situation
- Objectives of the stage 3, Analysis
- Measures in the short term



Stage 3, Analysis



Stage 3, Analysis: Objectives

- Assess in detail the exposure conditions
- Set-up the instruments: inventory, procedures, organisation in space and time
- Go deeper into the search of prevention measures
 - with specific measurements
 - with specialised techniques
- Verify whether the **RESIDUAL** risk is acceptable
- Estimate whether it is necessary to call in an expert for a specific aspects

stage 4, Expertise

Stage 3, Analysis: Who?

- The same persons who conducted the stage 2, Observation
- with the assistance of an OH practitioner with the methodological and technical knowledge



Stage 3, Analysis: the items

1. Description of the work situation
2. Inventory of the products
3. Labelling of the products and postsigning in the buildings
4. Elimination and substitution of the dangerous products
5. Reduction of the exposure
6. Safety during handling
7. Ventilation

Stage 3, Analysis: the items

8. Personal protective equipments (PPE)
9. Storage
10. Management of waste
11. Measurements in the event of accident, Incident or emergency
12. Training and information
13. Medical supervision
14. Specific prevention measures for certain activities
15. Evaluation of the current and residual risks

Stage 3, Analysis: Synthèse

- Risk in the present situation
- List of the control measures
 - Who does what and when?
- Residual risk when the control measures will be implemented
- Need for a stage 4, Expertise
 - For what?
- Short term measures

Role of the OH practitioner

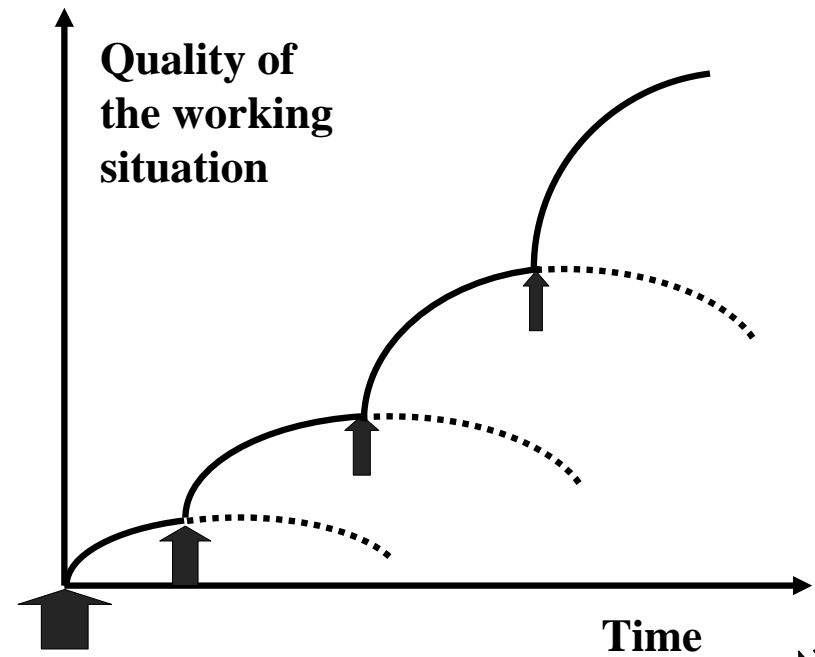
- To make the partners
 - Direction
 - Trade-unions
 - Workers
 - Safety and health Committee
- aware of the possibilities offered by the **SOBANE** strategy to structure the management of health and safety in the company for all work situations

Role of the OH practitioner:

- *To adapt the methods at the 3 stages Screening, Observation and Analysis to the characteristics of the work situation in re-examining:*
 - the terminology
 - the aspects taken in consideration

Role of the OH practitioner:

- To follow closely or lead himself the first application of the methods
 - to avoid ambiguities
 - to follow the process
 - discussion
 - decisions
 - synthesis
- To periodically re-start the use of the strategy while taking care that the process develops itself in the company



www.deparisnet.be

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Thank you for your attention...