No Paper Without Skilled, Healthy and Safe People


Co-funded by the European Commission DG Employment, Social Affairs and Inclusion.
Table of Contents

2 INTRODUCTION
3 FOREWORDS
5 INTRODUCING EMCEF AND CEPI
7 EUROPEAN AGENCY FOR SAFETY AND HEALTH AT WORK
8 PROJECT DESCRIPTION
9 INTRODUCTION TO THE PRACTICES
10 PRACTICES

  Management
  10 ▶ Horizontal Safety Checks
  12 ▶ Contractors Management

  Focused measures
  13 ▶ Lockout Tagout Tryout
  15 ▶ Anti-fall Cord
  16 ▶ Machine Guarding
  18 ▶ Safe Access to Confined Space
  20 ▶ Rescue From Drying Cylinder
  22 ▶ Roll Lifting Jack to Free Trapped Workers
  24 ▶ Custom-made Paper Reel Trolley
  26 ▶ Colour Coding System Improves Traffic Flow

  Sharing and Learning
  28 ▶ Audiovisual Catalogue of Critical Situations
  30 ▶ Manual for the Observation of Safe Behaviour in the Paper Industry
  32 ▶ Safety Without Words
  34 ▶ Five Minutes Daily for Occupational Safety
  35 ▶ Occupational Safety Observation
  36 ▶ Safety Alerts

  Involvement
  38 ▶ Health and Safety Dialogue
  40 ▶ Health circles
  41 ▶ Health and Safety “Pillar”
  42 ▶ Task Force Health Protection
  44 ▶ Health and Fun
  46 ▶ Safe Ideas Award

47 CONCLUSION
48 COMMISSION CONCLUSIONS
49 GLOSSARY
50 ACKNOWLEDGMENTS
Inherently, the pulp and paper making process may present risks to the health and safety of the workers. These risks can be related to the use of certain substances/products, to the running of the machines, to the exposure to high temperatures, to the transport and handling of loads of different kinds, to the maintenance of the production equipment, etc.

In 2003, the European paper industry committed to an aspirational target of “zero accidents”. Together with the European paper workers’ union EMCEF and under the auspices of the paper sector social dialogue, the project of compiling a set of concrete good practices for safety and health at work has been initiated with the financial support of the European Commission.

To develop this report, some 60 concrete practices have been received from EMCEF and CEPI members. A reference group composed of workers’ and employers’ representatives, with an expertise in the topic, have selected the most exemplary 22 practices.

These practices can apply to different types of pulp and/or paper mills, to different kinds of activities (daily operation, transport and handling, maintenance) and can in most cases be adapted and transposed. Considering the complexity of the pulp and paper manufacturing operations, those good practices which have been chosen can by no means be exhaustive, but the report paves the way to further identification of other good practices that can be shared and illustrates the benefits of constructive co-operation towards a common goal.

Both EMCEF and CEPI believe in the merits of awareness raising and experience sharing and hope that this report will be one of the reference tools for health and safety managers in the European paper industry. It should contribute to the indispensable effort to reduce health and safety risks at work in the sector on the route to “zero accidents”.

No Paper Without Skilled, Healthy and Safe People

Producing pulp and paper in Europe requires the use of a wide range of resources (raw materials, energy, water, chemicals ...), of which “people” are the most important.
The health and safety of workers is a core concern of EMCEF. We strive for a healthy workforce working under safe conditions, with the necessary skills and comprehensive H&S training not only in the paper sector, but in all the manufacturing industries that we represent. Occupational Health and Safety is and will remain an important part of our work also in the new European Industrial Workers’ Federation (industriAll) that we create together with our colleagues from the European Metal Workers’ Federation (EMF) and the European Trade Union Federation – Textile, Clothing, Leather (ETUF:TCL) in May 2012.

The project of the European Social Dialogue Committee in the Paper Sector and the resulting Brochure that was put together following committed and fruitful discussions by H&S experts from both, CEPI and EMCEF, is a good example for European Social Dialogue and for what we promote on European as well as on national and industry level. It acknowledges the fact that occupational health and safety and risk prevention measures must be taken with the participation of worker representatives who, since they are in direct contact with the realities at plant level and its risks and dangers, can provide vitally important contributions.

We consider this Best Practice Brochure as a useful tool and hope that it provides incentives to learn and to develop own risk prevention mechanisms in cooperation between management and workers.

Michael Vassiliadis
President of EMCEF
People are a core resource at all levels in the pulp and paper industry, and they are at the core of our sector competitiveness. They contribute to our vision to bring together all three pillars of sustainability: economic performance, environmental imperative and social perspective. Experience, knowledge and skills are part of the distinctive advantage of European mills and companies in the global arena.

Therefore, ensuring to the staff – from workers to executives – a healthy and safe working environment is a priority for companies, and an area where CEPI can bring its services.

Developing a “culture” of health and safety is a day-to-day activity for companies, as time pressure and routine can provide occasions for overseeing minimum health and safety procedures.

In that context, the report of good practices put together by CEPI and EMCEF should be a constant reminder that health and safety are core values to the industry, while offering a concrete toolkit for H&S managers.

In its first sustainability report in 2003, the industry pledged the aspiration of achieving zero accident. This report is a step further in that direction.

Jussi Pesonen
Chairman of CEPI
About CEPI

The Confederation of European Paper Industries (CEPI) is a Brussels-based non-profit making organisation championing this industry's achievements and the benefits of its products. Its collective expertise provides a unique source of information both for and on the industry. CEPI coordinates essential exchanges of experience and knowledge among its members, and has the ability to provide technical assistance to legislators and to identify independent experts on specific issues, like industry, environment, energy, forestry, recycling policies and competitiveness in general. Through CEPI, the paper industry increases its visibility and acts on emerging issues, making expert and constructive contributions on behalf of the industry. CEPI aims to showcase the paper industry as an example of a sustainable business sector well placed to provide solutions to the current climate and environment challenges, including those to biodiversity.

Through its 19 member countries (17 European Union members plus Norway and Switzerland) CEPI represents some 700 pulp, paper and board producing companies across Europe, ranging from small and medium sized companies to multi-nationals, and 1000 mills. Together they represent 25% of world production.

About EMCEF

The European Mine, Chemical and Energy Workers’ Federation (EMCEF) today organises 2.2 million blue and white-collar workers in companies in 35 countries and 131 national trade unions.

EMCEF is a member of the European Trade Union Confederation (ETUC) and co-operates with 11 other European Industry Federations in the ETUC. EMCEF also works with the International Federation of Chemical, Energy, Mine and General Workers’ Unions (ICEM). It organises members in a wide range of industrial areas: the chemical and process industries, energy, pulp & paper, pharmaceutical, glass and ceramic sectors, etc.

EMCEF promotes social dialogue in an enlarged Europe and represents six sectoral social dialogue committees: Paper, Chemical, Electricity, Extractive Industries, Gas and the cross-sectoral NEPSI. It also has a long-standing record in creating and co-ordinating European Works Councils. With more than 200 EWCs in all its sectors, EMCEF has been extremely active in shaping one important element of the European social dialogue.

Three European Industry Federations, namely: EMCEF; the European Metalworkers’ Federation (EMF); and the European Trade Union Federation Textiles, Clothing and Leather (ETUF:TCL) are in the process of creating a new and stronger European trade union organisation that will start operating in 2012 and will be named the industriAll – European Trade Union.
In April 2010, both the European employers’ and workers’ organisations of the pulp and paper sector, CEPI and EMCEF, established a formal sectoral dialogue under the auspices of the European Commission. Besides its contribution to building further confidence among the social partners, the social dialogue provides a unique opportunity to consider joint action, according to an annual programme of work commonly established and accepted. The social dialogue for the paper sector has already facilitated common positions on policy issues of relevance for the sector, as well the organisation of a thematic workshop on health and safety. It is also in that context that the project of developing this report has been initiated.
Every year in the European Union, there are around 5600 fatal work-related accidents and millions of people are injured or have their health seriously harmed in the workplace. Workers and employers need to be made aware of the risks that they face and how to manage them.

This has been the reason for the creation of the European Agency for Safety and Health at Work, EU-OSHA in 1996 by the European Union. EU-OSHA is the main EU reference point for safety and health at work.

Sometimes, information is all that is required for an employer or worker to address safety and health issues effectively. EU-OSHA aims to be the central provider of that information and to ensure that it is relevant to every user, regardless of the size of the company or the sector of activity.

The central role of EU-OSHA is to contribute to the improvement of working life in the European Union. Therefore the agency works together with governments, employers and workers to promote a risk prevention culture. It analyses new research and statistics on workplace risks and anticipates new and emerging risks through its European Risk Observatory. It identifies and shares information, good practices and advice with a wide range of audiences, such as social partners – employers’ federations and trade unions.

EU-OSHA’s main awareness-raising activity is the Healthy Workplaces campaign, which focuses on a different theme every two years. The Europe-wide Healthy Workplaces Campaign 2010–11 promoted accident-free safe maintenance. Without proper maintenance things can go dramatically wrong in the workplace. A wide range of different partners, CEPI and EMCEF included, have contributed to the Healthy Workplaces Campaign on safe maintenance.

This report on health and safety good practices in the European paper industry is not only connected to the Healthy Workplaces Campaign 2010–11, which was ongoing when the CEPI-EMCEF project was initiated, but also to the new Healthy Workplaces Campaign 2012–13 on “Working together for risk prevention”.
On 20 October 2010, in the context of the European Paper Sector Social Dialogue, EMCEF and CEPI organised a workshop on health & safety practices in the European paper industries. Through presentations reflecting on different situations, mills and regions, the workshop gave the opportunity to identify the many aspects of prevention, protection and resolution of health and safety issues.

When the opportunity of carrying out a joint project was identified, that would require a strong commitment of both EMCEF and CEPI and could be financially supported with EU funding, the paper sector partners chose to work together on awareness raising, information exchange and experience sharing on health and safety.

The project that resulted in the current report of good practices has been steered by a pilot group composed of representatives of the standing secretariats of both EMCEF and CEPI. To ensure the robustness and validity of the content, a reference group, composed of health and safety experts nominated by both organisations was set up.

Both EMCEF and CEPI inquired about good health and safety practices in the paper sector by using a template questionnaire to ensure a minimum level of consistency in the replies. Out of the numerous contributions received, the reference group was invited to select them on the basis of a scoring grid, taking into consideration the quality of the practice, but also its replicability/transposability and the different parts of the paper manufacturing process concerned (e.g., transport and handling, maintenance, daily operations). Special attention was paid to practices related to maintenance work, as both EMCEF and CEPI have been partners to the EU-OSHA Healthy Workplaces Campaign on safe maintenance.

The outcome of the selection process is a set of 22 good practices that apply in a wide range of situations and in pulp, paper and board mills. The selected good practices have all been edited in a form that makes the information compact, concrete and easy to read. The intention is to have such reports used as a practical risk reduction tool in all the European pulp, paper and board mills.
Introduction to the practices

The current report contains 22 good practices organised in 4 thematic areas.

**MANAGEMENT**

This section proposes practices that concern the general management of health and safety at the workplace. The practices are:

- Horizontal Safety Checks .......................................................... 10
- Contractors Management .......................................................... 12

**FOCUSED MEASURES**

This section includes specific measures that address a particular health and safety issue. The practices are:

- Lockout Tagout Tryout .............................................................. 13
- Anti-fall Cord ........................................................................... 15
- Machine Guarding .................................................................. 16
- Safe Access to Confined Space .................................................. 18
- Rescue From Drying Cylinder ..................................................... 20
- Roll Lifting Jack to Free Trapped Workers ............................... 22
- Custom-made Paper Reel Trolley ............................................. 24
- Colour Coding System Improves Traffic Flow ......................... 26

**SHARING AND LEARNING**

This section suggests ways to share experiences and learn from each other. The practices are:

- Audiovisual Catalogue of Critical Situations ............................. 28
- Manual for the Observation of Safe Behaviour in the Paper Industry 30
- Safety Without Words .............................................................. 32
- Five Minutes Daily for Occupational Safety ............................. 34
- Occupational Safety Observation ............................................. 35
- Safety Alerts ........................................................................... 36

**INVolVEMENT**

This section emphasises the importance of having people engaging and aligning their personal behaviour to a “health and safety” culture. The practices are:

- Health and Safety Dialogue ..................................................... 38
- Health Circles .......................................................................... 40
- Health and Safety “Pillar” ......................................................... 41
- Task Force Health Protection .................................................... 42
- Health and Fun ........................................................................ 44
- Safe Ideas Award ..................................................................... 46
**Horizontal Safety Checks**

The Netherlands

**SECTOR RELEVANCE**
- Pulp mill
- Paper mill
- Cardboard mill

**IMPLEMENTATION AREA**
- Daily operations
- Transport and handling
- Maintenance
- Health

**Background:**
The Dutch paper & board industry wants to become one of the safest and healthiest industries in the Netherlands. After an enormous reduction in accidents during a campaign period the amount of accidents stabilized. A system that helped members to improve their H&S issues was therefore needed.

This new system allows participating companies to receive free H&S advice on a regular base. This goes beyond a clinical evaluation of the implementation of the H&S Dutch Paper Regulations Book. Safety Checks provides an enrichment of H&S knowledge within a company.

Participating in this system can have a positive impact on assessments by the Dutch H&S authorities. Before the H&S authority will visit a company in the paper & board sector, they will check if the company participates in the Safety Check system and if they want to share their Safety Check formal report. The findings of this report will be included in the authority’s final decision whether they too will check the company.

**Description of the practice:**
Every three years, participating companies receive a visit from leading H&S experts. All these experts work in the paper and board industry. During a Safety Check, the experts start with a meeting with the CEO, the Works Council and the H&S Manager, where the experts explain the meaning of the Safety Check and the agenda of the day. After the meeting, the risk assessment, the H&S action plan and the implementation level of the H&S Dutch Paper Regulations Book will be checked, followed by an assessment on the H&S issues in the company.

These issues differ each year and are based on the accident statistics. The initial results will be explained at the end of the day in a meeting with the CEO, the Works Council and the H&S Manager. During the following weeks the H&S experts will prepare a report about the results of the visit. This report contains a formal and informal part. The formal part includes the results and recommendations based on the relevant annual H&S topics. The informal part focuses on the broader H&S issues and contains a lot of advice and tips about how to improve H&S in the company.

At the end of the year the association prepares a summary report based on all individual company Safety Check reports. This gives an indication of the H&S status in the Dutch paper and board industry and can be shared with the local and national authorities.

**Who is implementing the Practice?**
Three associations in the paper and board sector implemented the Safety Check system. The task was to
develop a system which everybody agreed with and to convince as many companies as possible to participate.

The associations implemented the practice, but the individual members can decide if they will participate. Participation means that they will work on the Safety Check results; if not, they cannot participate in the future.

**What benefits does the practice bring?**

The paper industry has reached a unique position in the Netherlands, because they are the first industry that has developed and implemented such a practice. This practice has also improved relations with the Dutch Health and Safety authorities. In addition the system is of interest to other industries from other sectors.

With the help of this practice, continuous attention to Health and Safety issues was created within the sector.

**Similar practices:**

It is very important to regularly look at the working processes in a mill with “fresh eyes”. To do it in a horizontal way is not the only possibility; there are several other systems in use which all bring the same approach.

The Swedish Safety Audits perform safety visits between different mills in one group or between different departments of one mill.

In the Spanish Safety Visits, an annual visit is organized to each section of the factory, involving safety representatives, heads of sections and security chiefs to check the facilities, the adequacy of existing security rules, situations or parts of the installation that are subject to accidents and any other potentially dangerous situations.

A similar practice in Germany is called “Inspection of the work by safety committee of the general works council”. Once a year, a work group is formed with the specialists for occupational safety and representatives from the divisions and plants. They visit each workplace to provide a third party view which will prevent tunnel vision.
Background:

An important aspect underlined by the 18001:07 OSHAS Standard concerns the control systems that a company needs to implement in order to ensure that the activities carried out by subcontractors conform to the commitments made by the company in its health and safety policy and with the relevant legislation.

It is necessary to relate the present risks in the places where the work is to be performed, with the risks arising from the outsourcing contract. These risks, whose management is also governed by specific, binding rules and regulations, can be expressed in terms of the contribution made by each person from an external company in creating risks to health and safety of employees of the organization (i.e. the generation of noise, the use of hazardous substances).

In order to eliminate or minimize the risk of interference, the most common solution adopted by companies is to regulate the activities of sub-contractors, primarily through the development of shared risk assessment documents. This is usually a difficult activity, since it concerns more than one department in the company, and it's hard to recognize the real contribution generated by interference of separate activities. Therefore, usually only risks related to single activities emerge.

Description of the practice:

A specifically designed form enables the company to identify and manage the so-called "risk of interference", i.e. the risk of accidents to which a worker is exposed as a result of activities performed by employees of different companies involved in other activities on the same working process.

We talk about interference when there is "dangerous contact" between the staff of the principal and one of the contractors or between staff from different companies operating in the same working environment.

When using the template, one identifies the risk factors and the risks associated with the interference, one assesses them and defines measures and actions to control them, and finally, one indicates the residual risk related to the interference.

Who is implementing the Practice?

The practice is implemented by the Health and Safety Manager and the Operation Managers. The Operation Managers have to use the template just before starting maintenance operations that involve external workers.

What benefits does the practice bring?

Filling in the form is simple and short. The written form can give confidence that the evaluation has been done, and preventive actions have been taken. It's also a database of possible actions for similar activities, and it gives the workers a precise written instruction about how to operate during the subcontractor's presence.

Success of this practice was measured by observing the activities monitored since its introduction. It has been possible to identify some solutions, such as:

- Managing the time lapse when two or more activities are happening simultaneously which would result in the presence of workers and/or equipment within the influence of each other's activities on the same working process;
- Managing the specific areas for all the work phases of activity that do not need to operate directly on or near the component under maintenance (e.g. pre-assembly, painting, etc.);
- The adoption of specific operating procedures, including for example wearing special personal protective equipment only during the activities that involve risks of interference.
Lockout Tagout Tryout
The Netherlands

SECTOR RELEVANCE
✔ Pulp mill
✔ Paper mill
✔ Cardboard mill

IMPLEMENTATION AREA
✔ Daily operations
✔ Transport and handling
✔ Maintenance
✔ Health

Background:
Maintenance and service activities are very high risk activities and workers can be exposed to unexpected releases of energy which could kill them! Hazards include contact with electricity, steam, high pressure air and water or entanglement in moving machinery through premature restarting.

The Royal Netherlands Paper and Board Association (Royal VNP) has identified “Lockout Tagout Tryout” as an important safety procedure for its members to control these risks and has established a group that has developed the procedure together.

Whilst the “Lockout Tagout Tryout” procedure is straightforward, local adjustments will be needed before this methodology can be applied in an existing organization.

Description of the practice:
“Lockout Tagout Tryout” is a safety procedure which is used to ensure that dangerous machines and installations are properly shut off and not started up again prior to the completion of maintenance or servicing work.

It requires that all sources of energy are blocked before any repair procedure is started. “Lockout Tagout Tryout” works with physical locks and tags, which ensure that energy sources can only be unblocked and released by the employee who is working in the machine. Only the person who switches off the machine and attaches the lock and the tag is allowed to unlock, un-tag and switch the machine back on again. The procedure requires that a tag is affixed to the locked device indicating that it should not be turned on.

The “Lockout Tagout Tryout” methodology was worked out in detail by a group of safety specialists who jointly produced a set of “Lockout Tagout Tryout” documents, which are designed for the Dutch paper industry. Through co-operation with the Dutch Labour Unions and the Dutch Labour Inspectorate (Arbeidsinspectie), it was
agreed to introduce this safety procedure into the mills.

During formal inspections as well as during voluntary ‘safety checks,’ “Lockout Tagout Tryout” progress is reviewed in order to ensure adoption of this practice at all members’ mills in the coming years.

The “Lockout Tagout Tryout” system should be applied during maintenance or servicing work at all stages of the pulp/paper making process.

**What benefits does the practice bring?**

“Lockout Tagout Tryout” has proven to be very effective in protecting workers against uncontrolled releases of energy during maintenance activities.

The “Lockout Tagout Tryout” procedure reduces not only the risk of injuries during maintenance works, it also avoids material damage and fire risks.

“Lockout Tagout Tryout” forces a team to reconsider roles and responsibilities. Its structured approach can help to reduce total downtime by better preparation and planning.

**Who is implementing the Practice?**

Plant managers, production operators, maintenance workers and contractors.

Plant management is responsible for safety at its facility. The decision to implement a plant-wide procedure such as “Lockout Tagout Tryout” can only be made with the full support of the management team.

During implementation, the key responsibility is with the maintenance group which needs to apply the procedure for its own safety.

The “Lockout Tagout Tryout” is a straightforward procedure that clearly shows whether it is being followed by the operators involved or not. Implementation of the practice requires tailor-made solutions and instructions and above all full commitment by management.

“Lockout Tagout Tryout” requires commitment and determination from all people involved, because it can change the way maintenance jobs are being done.

Maintenance workers might not see the risks they are exposed to without “Lockout Tagout Tryout” and dislike the fact that they need to take extra steps before they can resolve a breakdown.

“Lockout Tagout Tryout” however doesn’t work when applied partly, because with this procedure people rely on locks and tags that should protect them. Especially during the implementation phase, it is very important that the “Lockout Tagout Tryout” message is being supported by supervisors and managers who should take time to make sure that “Lockout Tagout Tryout” is used properly.

**Additional source of information:**

All information about “Lockout Tagout Tryout” is available (in Dutch) in an online ‘catalogue’, which is a set of sector specific safety documents. See [http://www.verbondpk.nl/Arbocatalogus/LTT](http://www.verbondpk.nl/Arbocatalogus/LTT)
Anti-Fall Cord
Spain

SECTOR RELEVANCE
- Pulp mill
- Paper mill
- Cardboard mill

IMPLEMENTATION AREA
- Daily operations
- Transport and handling
- Maintenance
- Health

Background:
It is very dangerous to work in a pulper even if the worker is secured by a normal cord. The Anti-Fall Cord system was installed at the request of risk prevention delegates to prevent accidents caused by falls in operations requiring access to pulpers and other similar pieces of equipment.

Description of the practice:
To protect workers from falling, Anti-Fall Cords, with automatic brake-arrest, were installed in the roof above tanks and chests where access to the interior is required from above. The Anti-Fall Cord protects the worker from falling even if he loses control. It applies to any part of the installation where people work at heights like pulpers and storage chests.

Who is implementing the Practice?
This practice was implemented by the risk prevention delegates and the H&S Committee.

What benefits does the practice bring?
By the installation of Anti-Fall Cords accidents are avoided in maintenance operations which require access to pulpers.
Practices: Focused measures

**Machine Guarding** (threading)
The Netherlands

**Background:**
In-running nips are a common hazard in papermaking. On some machines, safe automated threading is not feasible for technical and/or economic reasons.

Manual threading exposes operators to numerous hazards of this type with the risk of hand or arm amputation or worse and machine builders had not been able to solve this problem.

Royal Netherlands Paper and Board Association (Royal VNP) was no longer prepared to accept these risks and commissioned a team of industry specialists to find a solution.

**Description of the practice:**
This team developed a prototype device which protects the operators’ fingers from being caught in the unprotected position by reducing the opening to a size so that it cannot be passed with body parts such as hands and fingers. After further engineering a working solution was found – it is called the ‘finger biter’.

Royal VNP has identified this solution as an important safety device for its members. The engineering was worked out in detail and presented to the Dutch Labour Inspectorate (Arbeidsinspectie).

The association will recommend this solution to be used for similar issues at other paper plants in the Netherlands in order to minimize the risk of threading in its mills.

**Who is implementing the Practice?**
Plant management is responsible for safety at its facility. The technical adjustments that are needed to install safety devices on paper machines require investments that take time to be allocated before these can be installed. The final installation is in the hands of the maintenance crew.

**What benefits does the practice bring?**
The ‘finger biter’ protects the operator’s arms, hands and fingers during the threading of paper machines by guarding these body parts from moving machinery.

**Additional source of information:**
All information about machine guarding is (in Dutch) available in an online ‘catalogue’, which is a set of sector specific safety documents.

See [http://www.verbondpk.nl/Arbocatalogus/Doorleiden](http://www.verbondpk.nl/Arbocatalogus/Doorleiden)
Practices: Focused measures

PAPER THREADING WITH "FINGER BITER"
Safe Access to Confined Spaces
Italy

SECTOR RELEVANCE
☑ Pulp mill
☑ Paper mill
☑ Cardboard mill

IMPLEMENTATION AREA
☑ Daily operations
☑ Transport and handling
☑ Maintenance
☑ Health

Background:
Accidents resulting from entering and working in confined spaces are commonplace. This good practice has been developed to reduce the risk of major injury or death whilst carrying out maintenance operations in pulpers, chests, tanks, basements etc.

Description of the practice:
The good practice describes measures needed to access confined spaces, and modifies one specific procedure in particular.

For some maintenance activities workers are required to enter confined spaces, characterised by limited access openings and poor, or absence of, natural ventilation. In these confined spaces, and in the presence of hazardous chemicals and gases, a serious accident can occur, which can result in serious injury or death.

The object of this procedure is to define the precautions and procedures to be adopted for carrying out work in confined spaces with a potential risk from the presence of harmful gases, notably hydrogen sulphide (H₂S), and/or oxygen deficiency and other risk types like falling, etc.

If any task has to be carried out within the confined space, then once the preliminary cleaning operation has been completed, any residue removed and the forced ventilation is turned off, the operators will check the gas density with a portable instrument. If the portable instrument detects the presence of toxic gases, the safe-
A difficulty mask will be used to get rapidly out of the confined space. Also if an accident happens in such a situation the safety mask will be used to rescue the injured person from the confined space.

**Who is implementing the Practice?**

Supervisors are responsible for implementing the good practice since they will instruct their workers to enter confined spaces for some operations.

In the beginning, in some organisations, a poor safety culture has caused a slow implementation of the new way of working.

**What benefits does the practice bring?**

The benefits of the good practice are to reduce the risks that workers are exposed to when entering confined spaces thereby making their work safer.

**Additional source of information:**

The European Union has not introduced legislation specifically relating to work in confined spaces. However, the Framework Council Directive 89/391/EEC of 12 June 1989 covers all aspects of safety and health at a workplace. As a result the Directive places a duty on employers to take into account the specific characteristics of every workplace (i.e. including confined spaces). Specific requirements regarding confined spaces are included in Annex IV to Council Directive 92/57/EEC of 24 June 1992 on safety and health requirements at temporary or mobile construction sites (eighth individual Directive adopted under Directive 89/391/EEC). Annex IV to Directive 92/57/EEC specifies that if need be a confined atmosphere must be monitored and appropriate steps taken to prevent any hazards, a worker may not in any circumstances be exposed to a high-risk confined atmosphere, and a worker must at least be watched at all times from outside and all appropriate precautions must be taken to ensure that he can be assisted effectively and immediately. Further information can be found under: [http://osha.europa.eu/en/campaigns/hw2010/get-it-right/wrong-right/confined-spaces](http://osha.europa.eu/en/campaigns/hw2010/get-it-right/wrong-right/confined-spaces).
Rescue from Drying Cylinder
Germany

SECTOR RELEVANCE
✓ Pulp mill
✓ Paper mill
✓ Cardboard mill

IMPLEMENTATION AREA
✓ Daily operations
- Transport and handling
- Maintenance
- Health

Background:
It is very important to be able to rescue people from every part of a paper machine. One of the most difficult rescues is when someone collapses from exposure to heat and humidity whilst working inside a drying cylinder.

To enter the drying cylinder, a person must climb through a manhole, a very small oval access opening, at the front side of the machine, which is in some cases only 40 cm wide and 30 cm high. This is made more difficult because of the cylinder’s position within the machine which can cause further injuries when the injured person has to be pulled or pushed out of the cylinder without a suitable device.

The German machine builder, Voith, has developed a solution to this problem using a device called “Prosafe”.

Description of the practice:
“Prosafe”, see picture below, is a device which enables the injured person to be attached to a lightweight, rigid shell, designed to rescue people from closed vessels with small, lateral access openings, such as, drying, creping and Yankee cylinders on paper and board machines.

Voith’s “Prosafe” is a semi-shell with removable attachments which is constructed in such a way that it fits (together with the injured person) through the manhole.

For optimal results, the rescue team should consist of four persons; two inside the vessel and two outside the vessel. They have to strap the injured worker to “Prosafe” and manhandle them through the small opening.

Who is implementing the Practice?
The responsible Health and Safety Manager and the workers have to implement and use “Prosafe”.

What benefits does the practice bring?
In case of emergency help should be available quickly. Therefore emergency response teams dealing with drying or similar cylinders, which have to be entered via a manhole, should have a suitable device ready. With the help of “Prosafe” an injured worker is quickly and easily transported away from the incident, even out of a drying cylinder.

Additional source of information:
More information can be found at: http://www.prosafe.voithpaper.com/index_en.htm or via mail to prosafe@voith.com
Practices: Focused measures
Roll Lifting Jack to Free Trapped Workers
Sweden

SECTOR RELEVANCE
- Pulp mill
- Paper mill
- Cardboard mill

IMPLEMENTATION AREA
- Daily operations
- Transport and handling
- Maintenance
- Health

Background:
Winder drum reels bear the risk of someone becoming trapped between the paper reel and winder drum. Rotation can be stopped quickly in most cases by using the emergency stop but the injured person cannot be rescued because his hand/arm is trapped between the reel and the winder drum.

A device to quickly lift the reels in order to free the injured person is usually not available.

The reason behind the use of the Roll Lifting Jack was to be able to rescue any worker who gets trapped between rolls without having to wait for the fire department.

Description of the practice:
Rescue equipment with spreader jacks to lift rolls at an accident is located in lockers in the mill. In the locker there is a small trolley with all the necessary equipment, which you can easily take with you to the site of the accident. The trolley contains a jack and wooden wedges.

The Jack is also wedge-shaped and one end has to be put to the roll, which needs to be lifted, and the other to the floor, surface or another roll. Hydraulic pressure is applied to lift the roll and free the trapped worker.

Who is implementing the Practice?
This practice has to be implemented by the management, the H&S personnel and the workers.

What benefits does the practice bring?
Trapped workers can be rescued much faster and are not exposed to the risk of making the injury worse during the rescue attempt.
Similar practices:
As a result of similar concerns, Germany has also developed a rescue device to free a trapped individual. They have designed, built and installed a lifting device at the winder to perform this task in the event of an accident. All workers were instructed how to use the device.
Custom-Made Paper Reel Trolley

Germany

SECTOR RELEVANCE

- Pulp mill
- Paper mill
- Cardboard mill

IMPLEMENTATION AREA

- Daily operations
- Transport and handling
- Maintenance
- Health

Background:
Moving reels from one place to another can be a very tricky activity especially in older mills with narrow aisles and gates and was usually done with the help of push-carts in the past. However reels can now weigh up to 3 tonnes, which makes their transport almost impossible. Since no suitable motorized vehicle could be bought anywhere, one mill decided to act and built a paper reel transporter connected to an electrical pallet truck.

Description of the practice:
Moving even small paper reels (width 2.5 m, weight 3 MT) from the production hall to the finishing hall on a cart with no brakes was quite a tricky and hazardous operation considering the narrow aisles and gates and cramped proportions of some buildings. It also meant a lot of physical effort for the worker assigned to do the job.

After concluding that something must be done about this, it was discovered that there was no reel transporting system available on the market which suited the mill’s precise requirements, namely:
- Compact size
- Extremely flexible manoeuvrability
- Uncomplicated and simple handling
- Safe transport of a paper reel by one worker
- High availability and low maintenance costs

As a consequence the engineering department, together with a supplier, developed a device which is a combination of a pallet truck and a completely new paper reel trolley.

The prototype was built according to the demands and specific requests of the employees and then tested and it proved to be very successful. In the meantime three of such trolleys are in operation.

When disconnected from the pallet truck, an automatic braking system immobilises the trolley. Once the forks are inserted into the strong guide rails and lifted by the pallet truck the locking brake disengages itself and both vehicles are safely connected.

The outcome of this is a flexible tractor-trailer which can be handled safely and comfortably by one person.

Who is implementing the Practice?
The practice was implemented by the production and engineering departments and the local safety-at-work expert in the mill.

What benefits does the practice bring?
Without the newly designed paper reel trolley it can be very risky to transport reels of paper in a smaller mill. With the help of the custom-made reel trolley, reel transportation is now much safer and can be operated easily by only one person.
Practices: Focused measures
Colour Coding System Improves Traffic Flow
Germany

Background:
Trucks arrive in mills from all over Europe, carrying goods from across the world, driven by people who do not always understand German, and they need to load and unload at many different places across the site. The situation can become chaotic, with the potential for mistakes and accidents.

In-company traffic has to be organised in such a way so that everything can proceed smoothly and safely.
To achieve this it is not always necessary to rely solely on technology to supply the answer as the following example shows.

Description of the practice:
An inter-disciplinary group have used the Kaizen approach to improve on-site truck traffic in general and specifically the transport of chemicals.
A cost-efficient, reasonable and safe solution had to be found to regulate the sometimes chaotic traffic. The solution was a colour coding system, which regulates on-site traffic with the help of simple coloured signs.
Up until now an employee had to guide the truck driver (especially when not speaking German) to his point of destination. This is no longer necessary.
The principle is refreshingly simple: Upon arrival the truck driver is met by a member of the receiving/shipping department and shown what colour he has to follow and the number of his gate. Simple signposting does the rest. Everybody is happy with the results, particularly the truck drivers.

Who is implementing the Practice?
The practice was developed by an interdisciplinary group and implemented by the Logistics Department

What benefits does the practice bring?
Even drivers who do not speak the local language can locate their place of loading/unloading quickly and without problems.
Practices: Focused measures
Audiovisual Catalogue of Critical Situations
Spain

SECTOR RELEVANCE
✓ Pulp mill
✓ Paper mill
✓ Cardboard mill

IMPLEMENTATION AREA
✓ Daily operations
✓ Transport and handling
✓ Maintenance
✓ Health

Background:
The program began in 2005 with the Diagnosis of the Status of Occupational Health & Safety in the Sector. Initial diagnosis revealed a number of areas for improvement such as defining roles and responsibilities, preventive planning, safety inspections, training tailored to each job, system of work permits, modification of machinery to meet current legislation. To cover these needs, a series of projects has been launched such as the Audiovisual Catalogue of Critical Situations.

Description of the practice:
The Audiovisual Catalogue takes the form of a DVD and is perhaps the most ambitious and complex project ever undertaken by the Spanish paper industry’s Health and Safety Program. It focuses on those operations considered to entail the highest risks in the paper industry and on those situations where the most serious accidents take place. These particularly hazardous operations are grouped into five areas: working at heights, working in confined spaces, allocation of equipment for maintenance and cleaning work, working with chemicals and hot work.

The catalogue is not limited to providing a repertoire of especially hazardous situations; it also describes in detail the preventive measures to be taken in each case to avoid accidents and illness associated with such risky operations. This includes the procedures that determine the method for issuing work permits for such operations as well as training videos on the subject.

Who is implementing the Practice?
In 2005, the Spanish Association of Pulp and Paper Manufacturers (ASPAPEL) and the trade unions FIA-UGT and FSC-CCOO launched a Sectoral Programme of Occupational Health and Safety, under which a range of projects has been and continue to be developed, most notably the Audiovisual Catalogue.

What benefits does the practice bring?
The Audiovisual Catalogue represents highly customised material that enables workers to understand how to behave and act in a number of critical situations that may arise in mills and working environments, thereby enhancing learning and awareness.

The goal is to make this material available to the sector for use as part of the Health and Safety training given to workers involved in such operations.

Additional source of information:
The DVD can be obtained by sending a request to aspapel@aspapel.es
Similar practices:
The Netherlands has an online web catalogue that was developed by the Dutch paper and board association. This catalogue is also used to show workers where the critical situations are located and can be found under: www.verbondpk.nl/arbocatalogus.
Manual for the Observation of Safe Behavior in the Paper Industry

Spain

**SECTOR RELEVANCE**

- Pulp mill
- Paper mill
- Cardboard mill

**IMPLEMENTATION AREA**

- Daily operations
- Transport and handling
- Maintenance
- Health

**Background:**

The program began in 2005 with the Diagnosis of the Status of Occupational Health & Safety in the Sector. This initial diagnosis revealed a number of areas for improvement such as defining roles and responsibilities, preventive planning, safety inspections, training tailored to each job, the system of work permits, the modification of machinery to current legislation. To satisfy these needs, a series of projects have been launched such as the Manual for the Observation of Safe Behaviour.

**Description of the practice:**

The Manual for the Observation of Safe Behaviour allows for the design of monitoring programs of safe work behaviors, which allow for a determination of what behaviors need to be changed and what measures are necessary in order to promote safe work behaviors.

This practice seeks to create a true culture of safety by putting the focus on safe behavior of workers to encourage and create consolidated awareness about prevention. It is a tool to address one of the key elements for ensuring the effectiveness of any advanced warning system. The dissemination of these safety behaviors of the workers, through information and training, decreases the frequency and severity of accidents.

**Who is implementing the Practice?**

In 2005, the Spanish Association of Pulp and Paper Manufacturers (ASPAPEL) and the trade unions FIA-UGT and FSC-CCOO launched a Sectoral Programme of Occupational Health and Safety, under which a range of projects have been and continue to be developed.

The responsible officers for the implementation of this practice are the directors, heads of manufacturing, maintenance and storage and the Health and Safety Manager of the company.

However, in order to provide for an effective application of this method, it should include the participation of workers not only when being observed, but also as observers. They also need to participate in the middle management observations, e.g. foremen.

**What benefits does the practice bring?**

The application of the proposed methodology allows for:

- Identification of safety behaviour which needs to be adopted in the workplace.
- Dissemination of these behaviours among workers in a systematic and orderly manner so as to be perceived by them as relevant to their safety.
- Emphasis of behaviours that have occurred at work in the past and the promotion of gradual change towards safer behaviour of those involved.
- Identification and removal of barriers to behaviour change, which may be due to a lack of information, lack of training, poor design of organizational factors or deficiencies in working conditions.
The evaluation of the programme’s effectiveness is done by analyzing the information that was collected in questionnaires, before and after the intervention. The following conditions need to be stressed:

- Allow sufficient time for observers to carry out their observations.
- Provide sufficient time for observers to become comfortable with the new tool and observing their colleagues at work.
- Set a time frame that is sufficient to allow the baseline of safety behaviours to stabilise and when real trends can be estimated in the absence of intervention.
- Limit the time so that results of the intervention can be seen as soon as possible to avoid the problem where participants walk away from the program due to excessive delay. A number of weeks may be sufficient in many cases.

**Additional source of information:**

Safety Without Words
Portugal

SECTOR RELEVANCE
✓ Pulp mill
✓ Paper mill
✓ Cardboard mill

IMPLEMENTATION AREA
✓ Daily operations
✓ Transport and handling
✓ Maintenance
✓ Health

Background:
Risks to external workers need to be carefully controlled whilst they are working on site and detailed Health and Safety explanations which are normally carried out during training sessions are not suitable.

External workers want simple, pragmatic and direct information, for example: what kind of risks are there at work; what to do in order to reduce accidents and what to do in real working environments. They don’t want too many theoretical issues!

So, specific safety documentation for external workers was developed in order to improve the efficiency of communication on Health and Safety.

Description of the practice:
Pocket books, booklets, brochures and safety cards are very easy to handle and ideal for this application.

At any time the documentation can be used to refresh the Health and Safety rules, good behaviour and basic concepts, in a straightforward way. All documents were prepared from the viewpoint of the specific needs, current concerns and specific risks affecting the external workers. Gaps in literacy and language knowledge were also considered when preparing these materials.

The documentation is based on detailed risk documents and contract documents agreed between the pulp/paper mill and the service contractors for maintenance and projects, but bureaucratic issues were minimised.

Simple to read, it uses the common operation language, namely: not too many words, pictures and a lot of practical examples. This makes it easy to handle for the workers.

This training material is used just before external workers begin maintenance, projects, cleaning operations and on-site permanent services.

The pocket books, brochures, safety cards, booklets, pamphlets and other documentation related to H&S at work inside the mill, cover the following issues:
► Main process and working areas
► Risks at work in main activities/jobs
► Safety signs
► Individual protection equipment
► Collective protection measures
► Safety rules/procedures
► Emergency procedures

Safety documentation for external workers is also used to complement the Health and Safety training provided by mill staff when new workers are entering the mill for the first time.

Who is implementing the Practice?
The material which is to be used for the training of external workers has to be chosen by the Health and Safety Manager at each mill. Then the material has to be used by the employees who are responsible for the training of external workers before they start their work in the mill.

What benefits does the practice bring?
Using the safety documentation for external workers leads to improvements in safety behaviour, better respect of safety rules, regular use of safety equipment, safer machinery/tools handling, organization, cleaning and other safety-related issues. The number of minor and major accidents has been reduced during annual shutdowns.
Similar practices:

In Germany there is another way to train external workers before they start their work in a mill. Here the workers are trained via the internet before they start their work.

When the workers arrive at the mill some of them are tested to check if they have used the training.

Only workers that have done training are allowed to work in the mill and they are given a badge when they enter the mill and have to wear their badge during their whole working time in the mill.
Five Minutes Daily for Occupational Safety
Germany

Background:
Health and Safety issues are very important but they are not considered enough during normal daily working activities. To make workers more aware of Health and Safety issues, the “Five Minutes Daily for Occupational Safety” practice was implemented.

Description of the practice:
Each week, this “Five Minutes” practice has different Health and Safety key sub-topics with short descriptions explaining the important issues. The topic for each week is also made available as posters with pictograms at all machines, break areas, bulletin boards and offices. Often the safety training materials consist of five to six different posters which are combined with a little quiz dealing with the content of the training. The topic for each week is decided during the mill meeting the Friday before. All managers are responsible for checking the content and the implementation of these safety activities. Most of the pictograms and a lot of the content are provided by the Trade Unions.

Who is implementing the Practice?
This practice is implemented by the mill management team and a fresh topic is chosen each week by the responsible managers. Nearly every mill worker participates in “Five Minutes Daily for Occupational Safety”, every day.

What benefits does the practice bring?
The practice is a very useful tool to make workers aware of the different risks at their working place. With the help of this practice, minor accidents in particular have declined dramatically.

Additional source of information:
The German liability insurance association provides a CD with training materials.
Occupational Safety Observations
Germany

SECTOR RELEVANCE
✔ Pulp mill
✔ Paper mill
✔ Cardboard mill

IMPLEMENTATION AREA
✔ Daily operations
✔ Transport and handling
✔ Maintenance
✔ Health

Background:
Workers usually only know about their own specific workplace in a mill and have little knowledge about the work that other people are doing in the mill. Furthermore, their awareness of health and safety at work is very low since most of them have worked for a very long time in their positions and have lost their sensitivity to dangerous situations.

Description of the practice:
This practice aims to involve each employee in considering their colleagues’ workplaces with regards to aspects of safety. For the observation, workers visit totally different areas of the mill to watch the behaviour of their colleagues with fresh eyes. This happens six times per year. Findings and impressions are discussed by the observer with his colleagues who he has observed. Proposals to improve health and safety are tested and, wherever applicable, implemented. Each observer plans a time when he will be observed at his workplace by his colleagues. The project was financially supported by the German employer’s liability insurance association.

Who is implementing the Practice?
This practice has been implemented by the Department of Process Management and the responsible Health and Safety Manager. After it has been implemented each worker has to participate in the system of Occupational Safety Observations.

What benefits does the practice bring?
Occupational Safety Observations help to sensitize workers to Health and Safety and everyone assumes more responsibility for Health and Safety issues. Tunnel vision is prevented by this practice as workers try to improve health and safety in every area of the mill.
Safety Alerts
United Kingdom

SECTOR RELEVANCE
✓ Pulp mill
✓ Paper mill
✓ Cardboard mill

IMPLEMENTATION AREA
✓ Daily operations
✓ Transport and handling
✓ Maintenance
✓ Health

Background:
When an accident occurs in their own workplace, managers inevitably take measures to prevent a recurrence. The UK’s Confederation of Paper Industries (CPI) provides a “Safety Alert” service to assist companies to review their own operating procedures following another mill’s accident to enable their managers to take preventative action before the same accident happens locally. The action taken will vary from a review of guarding and control systems to an amendment to procedures or provision of additional training.

Description of the practice:
In the UK there is an informal procedure which notifies paper mills of any serious injury or fatality. If the company is a member of CPI, the association will work with them to produce an industry “Safety Alert”. The alert will outline a brief description of the circumstances surrounding the accident and where possible ‘sensitive’ (detailed) photographs will be included to illustrate the situation. CPI will always comment on the accident and provide strong recommendations for review and action.

Prior to issuing the alert, the Health and Safety Executive (HSE) and the Union will be invited to comment. Normally, for legal reasons, HSE decline to comment, however they will provide informal advice; the union will also comment on the alert, by referring action to their members’ safety representatives.

The alert does NOT assign blame to the company or to an individual; it simply reports the facts as they are known at the time.

Once the report has been agreed by all parties, including the company where the accident occurred, it is distributed across the industry. In addition, the alerts are sent to CEPI for distribution to member companies.

Who is implementing the Practice?
Primarily, CPI will initiate the alert, with the cooperation of the company and support from the trade unions.

What benefits does the practice bring?
The “Safety Alerts” are raising people’s awareness about the causes of the featured accidents and makes suggestions about how others can take steps to avoid similar accidents. The sharing of information happens without discrimination or prejudice. Success can only be measured by the actions taken by individual companies based on their own internal investigations.

Safety and Employee Representatives are quite often involved in the internal investigations.

Additional source of information:
All CPI “Safety Alerts” are available on the CPI website and are open to the public http://www.paper.org.uk/services/health_safety/safety_alerts.html
Similar practices:
The Swedish PIA is a web-based information system for the reporting of accidents and near misses. This system is jointly created by the labour market organizations Pappers and Skogsindustrierna (Trade union and employers organizations) and it also includes a follow-up “to do” list to prevent new accidents.

CPI also liaises with the Australian Pulp and Paper Industry Occupational Health, Safety and Environment Unit to share information about serious accidents. See www.ppwsafety.org.
Health and Safety Dialogue
France

SECTOR RELEVANCE
- Pulp mill
- Paper mill
- Cardboard mill

IMPLEMENTATION AREA
- Daily operations
- Transport and handling
- Maintenance
- Health

Background:
The topic of ageing staff has become more important since 2006. Negotiations on health and safety at work within the paper and cardboard sector started at the end of 2008. Two years later a consensus agreement was signed on 10 April 2010 and a new approach to risk prevention at work was initiated. In this context, the employers’ group committed to develop a sectoral approach on health and safety and to allocate dedicated resources aimed at hiring a health and safety policy officer (overall budget of more than 350,000 EUR).

Building on the basics of prevention of risks at work, notably the need for a comprehensive approach and for continuous improvement, UNIPAS (paper industry employers’ organisation) changed its bylaws in spring 2011 which now include health and safety at work as well as social dialogue, employment and skills.

Description of the practice:
This evolution is more than a symbolic, political and socially correct development. In fact, concrete actions have already been taken towards companies and workers in the field of risk prevention and the improvement of working conditions, i.e. setting up a national health committee and the development of firm procedural documents, e.g. prevention guide of risks at work; induction guide; thematic mini-websites; prevention of musculoskeletal disorders; listing of national health and safety experts, etc.

Moreover, as a continuation of the project organised with Maturescence (expert on ageing workers) and to the national action day of 9 December 2010, co-organised with FACT (national fund for working conditions improvement), the employers’ group voluntarily opened a negotiation on prevention of ill-health as a result of one’s profession. Solid proposals were made in early October 2011.

The initiatives and actions which have been taken over the last 3 years at national level in the field of health and safety at work have contributed to making the paper and cardboard sector one of the most responsible and forward looking sectors. This wouldn’t have happened without the support of FACT, considering the numerous tensions and disputes among the social partners on the topic of prevention of professional risks, which are closely connected to the extension of one’s working life and one’s exposure to materials and processes that can cause ill-health.

FACT, as partner of the paper and board sector, was recognised as a facilitator in that process. FACT has been able to raise the awareness of the social partners on the issues of health and safety at work and enabled them to make progress that will benefit both workers and companies alike.

Who is implementing the Practice?
In France, this practice is implemented by the Representatives of Workers and UNIPAS.

What benefits does the practice bring?
It is too early to see all the benefits, because the program is still developing. But some deliverables have al-
ready been produced by the program, e.g. a prevention guide of risks at work, an induction guide, thematic mini-websites, etc.

Finally, the social partners have agreed to continue to discuss the issues of working at night and the sensitive issue of working time. A study carried out by Ergonova Cabinet (ergonomist consultant) is under review and the recommendations it puts forward should be adopted by the parties prior to a dedicated negotiation on work at night that should start in the first half of 2012.

Additional source of information:
http://www.unipas.org/site/
http://www.unidis.fr/
Health Circles
Germany

Description of the practice:
The Health Circles meet regularly and pick up shortcomings from the different units and discuss their priority levels. Identified priority levels of shortcomings are presented to a steering group. This group then takes decisions about which shortcoming should be resolved.

There are already several measures in place:
► The company pays a contribution to the membership of the sports and health centre (50% of the membership fee).
► Dedicated health days in the mill (counselling on nutrition, physical exercise, etc.)
► Seminars are held by the employers’ liability insurance association (occupational safety)
► Monthly occupational safety checks are made by the department manager with the assistance of a technologist. Presentations of findings of these checks are given at the occupational safety committee meeting.
► Blood tests are offered in sections with hazardous chemical substances.
► Preventive medical check-ups are offered every two years.
► A separate web space on the intranet is dedicated to workplace health promotion.

Who is implementing the Practice?
It is only possible to implement these Health Circles with the help of sport and health centers, the health insurance and other partners. When a Health Circle is implemented the division and department managers and works councils are responsible for it but each worker participates by his own motivation.

What benefits does the practice bring?
It is too early to see all the benefits of this project but the expected results for each individual are:
► Greater motivation
► More independence when dealing with topics like health and nutrition
► Higher awareness to the topic of safety at work
► More ability to withstand stress

Background:
This practice was implemented to help employees with their health and because of the increased retirement age. Health Circles were formed at every German mill in the group, in all departments and for all employees (shift workers and normal workers). The Health Circles were implemented in co-operation with sports and health centers, the health insurance and also the employer’s liability insurance association.

SECTOR RELEVANCE
☑ Pulp mill
☑ Paper mill
☑ Cardboard mill

IMPLEMENTATION AREA
☑ Daily operations
☑ Transport and handling
☑ Maintenance
☑ Health

Practices: Involvement
Health and Safety “Pillar”
Germany

Background:
Whenever there is a technical or safety problem in a mill it must be detected and resolved as quickly as possible.

The Health and Safety “Pillar” was established to react quickly to such problems and as a preventive measure for employees.

Description of the practice:
Through regular meetings and close co-operation of the working groups in Human Resources, Production, Occupational Safety, Paramedics and also the Works Council, specific problems are being picked up and opportunities for improvement are being found. Specific areas are noise protection, non-smoker protection, working conditions, workplace assessments.

Every worker is entitled to contact the participants of the Health and Safety “Pillar” in order to point out shortcomings. This group will then try to resolve the defined problem as soon as possible.

Who is implementing the Practice?
The decision to implement a plant-wide procedure such as the Health and Safety “Pillar” can only be made with the full support of the management team. When the “Pillar” is set into action the members of the departments involved in it are responsible for its work and also its results.

What benefits does the practice bring?
Problems are identified earlier and as a result remedies are expected to be found and implemented more quickly.

However, the working group’s budget is limited. Improvements that are too ambitious might take too much time due to long-term authorization procedures.
Task Force Health Protection
Germany

**SECTOR RELEVANCE**
- Pulp mill
- Paper mill
- Cardboard mill

**IMPLEMENTATION AREA**
- Daily operations
- Transport and handling
- Maintenance
- Health

**Background:**
Health and safety and prevention in the paper industry is an important local issue.

About 70% of employees work in fully continuous shift operations, therefore they have not only the general workload to manage but also other physical issues resulting from a shift operation. The delayed retirement age and resulting demographic developments make health an increasingly important factor. This is why the Task Force was founded in 2004. Since then it has continued with great success.

**Description of the practice:**
The Task Force was established at the initiative of the Works Council and the following groups are participating: occupational safety, company doctor, human resource management, health insurance fund, catering operation and the works council. If necessary, other knowledgeable persons are invited. Today the Task Force is managed and moderated by the department of occupational health and safety.

The Task Force meets regularly about every three months on specific topics.

For several years, there have been annual "health weeks" in some mills. Together with the professional association, the health insurance fund, the addiction specialist office, gym etc. targeted preventive actions are carried out successfully.

**Who is implementing the Practice?**
Occupational health and safety has a high value, to which all divisions and managers are committed. Currently, the operational health and safety department is responsible for implementing the policies.

**What benefits does the practice bring?**
Task Force Health Protection has generated the following benefits:
- Free water-vending machines have been installed in all areas of the operation (contributing to regular fluid intake to reduce high blood pressure, etc.).
- Financial support for the use of health prevention facilities in fitness centres is now possible for all workers.
- Colorectal cancer screenings are offered to all workers.
- Despite the heavy workload a low sickness rate and a very low labour turnover rate has been measured in almost all areas.

**Additional source of information:**
At the moment the topic of affordable child care is being considered by the Task Force.
Practices: Involvement
Health and Fun
The Netherlands

Background:
Companies are experiencing a higher rate of sick leave, a decrease of productivity and higher costs. Therefore a change is needed.

Health and Fun is necessary because 33% of working people in the Netherlands do not live healthy enough lives. Currently, this results in chronic diseases for almost 25% of all Dutch people!

The Health and Fun practice will create vital and healthy staff, prevent dropout of staff and increase productivity by using the Lifestyle Compass. This compass deals with five issues: Movement, Smoking, Alcohol, Food, Relaxation.

Description of the practice:
Working with an external partner, one of the members of the Royal Netherlands Paper and Board Association started a pilot to develop effective health policy and appropriate action to counter overweight problems by ensuring that employees exercise, stop smoking, reduce the use of alcohol, eat healthily and take sufficient relaxation. They did this according to a Health Compass which contains 7 steps:

1. Getting support
2. Using current structures
3. Analysing the needs and wishes
4. Developing a plan
5. Implementing the plan
6. Evaluation
7. Securing the results

These measures led to the following results:
► Food choices in the company canteen were modified.
► Training sessions about calories and fat were offered to employees.
► People were informed about the amount of exercise needed to burn calories.
► Voluntarily, some employees measured their weight at weekly intervals and entered the results onto an Excel template. This small competition was an idea of the employees themselves.

Who is implementing the Practice?
Health and Fun will be implemented by the individual plants, but they can be assisted by an external partner and the association.

All management layers have to support it before starting the implementation phase.

The Health and Fun practice is voluntary: workers are free to join.

What benefits does the practice bring?
Adopting this practice leads to greater awareness, discussion, enthusiasm and appreciation from the employees towards their employer. Additionally, as a side effect, it leads to a smaller Body Mass Index with some employees, lower sickness rate and also to a possible decrease of accidents (in the longer term).
Similar practices:
In Germany there is another practice for raising employee health awareness. With the collaboration of the health insurance fund and the works' doctor, disease focal points are determined and appropriate health care weeks are arranged. During these events, affected persons can be identified and offered appropriate measures. Advice is given and behavioural changes are recommended.

With the help of this practice hidden diseases or pathogenic causes are revealed.
Safe Ideas Award
Italy

Background:
The promotion of Health and Safety in the workplace represents an ethical imperative, above and beyond the legal requirements. Thus it is an absolute priority to spread the safety culture throughout companies, by highlighting certain activities that will engender reciprocal trust, understanding and awareness.

The aim is to work as a team towards the achievement of this shared objective. It was necessary to improve commitment in all groups of employees, and to recognize in a sort of “real way” their contributions. The intention is to create a team spirit, in order to achieve a common objective together.

Description of the practice:
The Safe Ideas Award was implemented in order to maximize commitment at all levels within the organisation.

There are two different sections, the first reserved for H&S Managers, Workers’ Representatives and Members of Health and Safety Committee; the second for all other workers within the company.

It aims to promote ideas, proposals and suggestions to improve health and safety, regarding organization, management, behaviour and technical improvements. The more concrete and up-to-date, the better they are. To apply, a form has to be filled in, with photos, short films and other documentation, and sent to the secretariat.

Who is implementing the Practice?
The practice has been initiated by Sofidel and has to be implemented by the Health and Safety Manager on a mill level. To achieve results, the voluntary participation of the workers is required.

What benefits does the practice bring?
It brings two different kinds of benefit. On one hand there are the answers that employees and workers give themselves and which are helpful to improve the safety in the mill. On the other hand the contest helps to make workers think about Health and Safety issues in their mill and to be more aware of accidents or dangerous situations.

Additional source of information:
A jury of health and safety experts select the best ideas.

The first prize is a full-option week-end in a large European city. The winning idea is shared and implemented in all mills within the group.

The winner in 2010/11 won a trip to Paris with an idea which has a high potential to reduce risks caused by the manual handling of loads. The idea was to build carts to carry carton tubes. These carts are designed to be operated manually and can be adjusted. They have wheels to make handling easier and include a holder for the carton tubes. The system allows the handling of carton tubes of different diameters.

SECTOR RELEVANCE
✓ Pulp mill
✓ Paper mill
✓ Cardboard mill

IMPLEMENTATION AREA
✓ Daily operations
✓ Transport and handling
✓ Maintenance
✓ Health

Additional source of information:
A jury of health and safety experts select the best ideas.

The first prize is a full-option week-end in a large European city. The winning idea is shared and implemented in all mills within the group.

The winner in 2010/11 won a trip to Paris with an idea which has a high potential to reduce risks caused by the manual handling of loads. The idea was to build carts to carry carton tubes. These carts are designed to be operated manually and can be adjusted. They have wheels to make handling easier and include a holder for the carton tubes. The system allows the handling of carton tubes of different diameters.
Conclusion

Health and safety is a constantly moving target. Today’s good practices sooner or later will be out of date. So, new knowledge, experience learned, technological development and innovation can contribute to reducing the risks at the workplace.

CEPI and EMCEF invite their members to use and discuss the proposed practices. They invite other industries to take a look at the report and the proposed practices and see how they can learn from them and adapt them to their own circumstances. Likewise the paper industry can learn from others.

Moreover this report can be one of the building blocks to the EU-OSHA campaigns towards healthier and safer workplaces.

In order to further improve the practices and further reduce risks, comments on the report are welcome and can be addressed to mail@cepi.org or info@industriall-europe.eu.
Protecting health and safety at work is a task to which the European Commission is strongly committed. It is widely recognized that the EU’s occupational health and safety legislation has helped make the EU a world leader in health and safety at work. EU social partners have contributed directly or indirectly to most of these EU legislative and policy developments.

Investing in occupational health and safety is good both for business and for workers. It contributes to company performance, improves staff well-being, reduces absenteeism and staff turnover, and brings greater job satisfaction. It contributes to improving life expectancy and to avoid the waste of human resources. The cost of accidents at work and work-related ill-health supports the case for investing in occupational safety and health. EU companies depend for their survival and expansion on a committed and healthy workforce, which will only thrive in a high-quality working environment with safe and healthy working conditions.

There is no doubt that a good working environment is a big factor in competitiveness and can play a crucial role in increasing the workforce’s potential. That is part of the logic behind the European Union’s strategic agenda for the next decade: the Europe 2020 Strategy. It aims to step up structural reform in Europe to achieve growth that is smart, sustainable and inclusive.

Health and safety policies have their full place in this new strategic agenda. Bringing down the rate of accidents and the incidence of work-related diseases is a goal in itself as it reduces human suffering. But it also makes sense in order to reduce absenteeism and to cut sickness and invalidity costs. It is also essential if we want to ensure improved conditions for people to stay longer in the labour market and to develop a skilled workforce, which is an essential asset towards a competitive, sustainable and innovative economy. The European Commission therefore considers that the improvement of occupational safety and health is today a key element for the sustainability and competitiveness of the EU economy.

Since the establishment of a Sectoral Social Dialogue Committee for the pulp and paper sector in 2010, the European Commission supports the European employers’ and workers’ organisations of CEPI and EMCEF, to develop social dialogue at European level. The Commission welcomes their joint efforts, in particular their work related to this project on occupational health and safety. The resulting brochure is a good example for European social dialogue and a useful tool for managers and workers in that specific area.

Armindo Silva, Director
(Employment and Social Legislation, Social Dialogue)
## Glossary

<table>
<thead>
<tr>
<th>Abbreviation</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>18001 OHSAS</td>
<td>Standard set of Occupation Health and Safety Assessment Series for health and safety management systems</td>
</tr>
<tr>
<td>ASPAPEL</td>
<td>Asociación Española de Fabricantes de Pasta, Papel y Cartón – Spanish Pulp, Paper and Board Industries Association</td>
</tr>
<tr>
<td>CEO</td>
<td>Chief Executive Officer</td>
</tr>
<tr>
<td>CEPI</td>
<td>Confederation of European Paper Industries</td>
</tr>
<tr>
<td>Confined space</td>
<td>Place which is substantially enclosed (though not always entirely), and where serious injury can occur from hazardous substances or conditions within the space or nearby (e.g. lack of oxygen)</td>
</tr>
<tr>
<td>CPI</td>
<td>Confederation of Paper Industries (United Kingdom)</td>
</tr>
<tr>
<td>EMCEF</td>
<td>European Mine, Chemical and Energy Workers’ Federation</td>
</tr>
<tr>
<td>EU-OSHA</td>
<td>European Agency for Safety and Health at Work</td>
</tr>
<tr>
<td>FACT</td>
<td>Fonds d'Amélioration des Conditions de Travail – French fund for the improvement of working conditions</td>
</tr>
<tr>
<td>FITAG-UGT</td>
<td>Federation of Industry and Agricultural Workers</td>
</tr>
<tr>
<td>FSC-CCOO</td>
<td>Federación de Servicios a la Ciudadanía – Confederación Sindical de Comisiones Obreras – Spanish Confederation of Workers’ Commissions</td>
</tr>
<tr>
<td>H&amp;S</td>
<td>Health and Safety</td>
</tr>
<tr>
<td>HSE</td>
<td>Health and Safety Executive (United Kingdom)</td>
</tr>
<tr>
<td>KaiZen</td>
<td>Philosophy or practices that focus upon continuous improvement of processes in manufacturing, engineering, game development, and business management (Japan)</td>
</tr>
<tr>
<td>Koninklijke VNP</td>
<td>Koninklijke Vereniging van Nederlandse Papier- en kartonfabrieken – Dutch Paper and Board Industries Association</td>
</tr>
<tr>
<td>LTT</td>
<td>Lockout Tagout Tryout</td>
</tr>
<tr>
<td>Maturescence</td>
<td>French network of experts in age management, discrimination at work, health at work</td>
</tr>
<tr>
<td>Pappers</td>
<td>Svenska Pappersindustriarbetareförbundet – Swedish Paper Workers’ Union</td>
</tr>
<tr>
<td>PIA</td>
<td>Pappersindustrins Informationssystem om Arbetsmiljö – Swedish accidents database</td>
</tr>
<tr>
<td>Skogsindustrierna</td>
<td>Swedish Forest Industries Federation</td>
</tr>
<tr>
<td>UNIPAS</td>
<td>Union des Industries Papetières pour les Affaires Sociales – French Paper Industries Union for Social Affairs</td>
</tr>
</tbody>
</table>
Acknowledgments

EMCEF and CEPI wish to thank for their contribution:

► The European Commission, DG Employment, Social Affairs and Inclusion

► Norbert Schöbel and Carlos Alberto Lopes, from the European Commission, who have supported the Social Dialogue for the Paper Sector and this project.

► Oliver Hahlbohm, who has collected, analysed, summarised and put together most of the content of the report.

► Christer Larsson, Bud Hudspith, Michel Morganti, João Rebola, Lasse Wahlstedt, Erwin Heijsbroeck, Marko Diekstra, Miguel-Angel Gaitán González, Mikko Lehtonen, Peter Schuld who selected the practices and guided the development of the report.

► Teresa Presas, Corinna Zierold, Noura Younes, Catherine De Norre, Jorma Rusanen and Bernard de Galembert, who ensured the management of the project and the practical realisation of the report.

► Tim Watts, who ensured the overall consistency, harmony and readability of the report.

► Eevaliina Rusanen, who made the design and layout.

► Andrew Braund, Inès Maria Chacón Paz, Iris Biener, Gian Luca Antonelli, Werner Auracher, Gerben Bulten, Simon Heinz, Winfried Harren, Marit Holtermann Foss, Arno Salminen, Jukka Hämeläinen, Esa Kaitila, Per Hidesten, Arnaud Couvreur, Waldemar Janczarski, Ralf Vache, Holger Lennartz and all the member organisations of EMCEF and CEPI for having provided the good practices and related illustrations.

► Detlef Höffken and Katherine Merignac who translated this Brochure into German and French.