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EDITORIAL

A jigsaw falling into place

This June, the ETUC adopted a resolution which gives major input into the groundwork on the Commission's new health and safety programme flagged up in the Social Policy Agenda adopted at the Nice Summit in December 2000. The resolution is informed by a state-of-play and outlook review by the Workers' Group of the Luxembourg Advisory Committee.

The ETUC calls on the Commission to bring the new programme within the framework of the general employment strategy, involve the social partners more, and develop a programme focused on efficient legislation supported by instruments like the "open method of coordination". It lays down a set of concrete aims and proposals like extending the scope of the framework directive to self-employed workers, setting guidelines for the development of preventive services, establishing a four-year programme to support the applicant countries which underscore the need to rekindle the Community debate and forge links with other Community policies - not just internal market policies, but gender equality, environmental and public health policies, too.

The Advisory Committee, as a tripartite European body, should play a prominent part in framing and implementing the future Community programme within the spirit of the joint ETUC/UNICE proposals on the procedure for consultation of the social partners on occupational safety and health. UNICE made its position clear in August 2000 in a document entitled *Occupational safety and health - a priority for employers*. The employers argue that the legislative framework is in place, so efforts must now focus above all on application of the law in SMEs through the development of a prevention culture among individuals and putting employers in a position to choose the best-adapted prevention measures.

While the Governmental Group has not yet come up with hard proposals, some governments have published[1] their views and others

[1] Britain's HSE has published its draft contribution : http://www.hse.gov.uk/new/ content/eu-osh.htm

spoke at last April's seminar co-hosted by the Swedish Presidency, the Commission and the Bilbao Agency on "Quality of work: A future Community strategy for safety and health at work". The governments' approach can be found in the declarations of the Nice and Stockholm Summits and the press releases put out by the Social Affairs Councils which, in reference to employment policies, talk about the importance of stepping up efforts to promote a safe working environment *for all*. At the Nice Summit, the States agreed to respond to new risks by initiatives on standards and exchanges of good practice. This idea of quality and what it implies in the way of governments' commitment through employment policies is underscored in a Commission Communication which proposes developing the European employment strategy and framing new guidelines for 2002 which include health and safety[2].

This policy approach can only be welcomed, but it is hard to see how it can be put into practice unless the relevant actors are involved, specific resources allocated, and appropriate indicators set. In a field like health and safety which is - and must always be - essentially legislative, the open coordination method should supplement but clearly must not supplant rule-making. Relevant as it may be to set objectives on which to focus all players' energies, these objectives themselves must stem from real needs (which requires a comprehensive knowledge base on risk situations and exposed workers) and an ongoing evaluation to avoid hollow statistical victories that bring no improvement in working conditions, which is the main focus of any strategy at all levels. That is also what the Economic and Social Committee wants with the call made in its Opinion for an evaluation of national experiences followed by a pilot study. ■

Marc Sapir,

Director of the TUTB

[2] The guidelines for 2001 make the first ever linkage between employment policy and health and safety at work policy: the Member States will "endeavour to ensure a better application at workplace level of existing health and safety legislation by stepping up and strengthening enforcement, by providing guidance to help enterprises, especially SMEs, to comply with existing legislation, by improving training on occupational health and safety, and by promoting measures for the reduction of occupational accidents and diseases in traditional high risk sectors" - Council Decision of 19 January 2001 on Guidelines for Member States' employment policies for the year 2001 (2001/63/EC).

TUTB NEWSLETTER

THE EUROPEAN TRADE UNION TECHNICAL BUREAU FOR HEALTH AND SAFETY was established in 1989 by the European Trade Union Confederation (ETUC). It provides support and expertise to the ETUC and the Workers' Group of the Advisory Committee on Safety, Hygiene and Health Protection at Work. The TUTB is an associate member of the European Committee for Standardization (CEN). It coordinates networks of trade union experts in the fields of standardization (safety of machinery) and chemicals (classification of hazardous substances and setting occupational exposure limits). It also represents the ETUC at the European Agency for Health and Safety in Bilbao.

TUTB - Bd du Roi Albert II, 5 bte 5
B-1210 Brussels
Tel.: +32-(0)2-224 05 60
Fax: +32-(0)2-224 05 61
E-mail: tutb@etuc.org
Internet: **www.etuc.org/tutb**

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Responsible Publisher:
Marc Sapir, Director of the TUTB
Bd du Roi Albert II, 5 bte 5
B-1210 Brussels
Editor: Janine Delahaut
(jdelahau@etuc.org)
Production assistant:
Géraldine Hofmann
Contributors:
Stefano Boy, Janine Delahaut, Theoni Koukoulaki, Marc Sapir, Laurent Vogel
Translation: Glenn Robertson
Reference material: Jacqueline Rotty
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A New Impetus for Community Occupational Health Policy

Debate on future Community health and safety policy

Since 1992, there has been a marked slowdown in Community health and safety initiatives. There are various reasons why, not least employers' campaigns - with the blessing of some governments - for more deregulation, the erosion of Commission resources for occupational health, and so on. More recently, national debates on workplace health issues have flared up again in many Community countries. Worsening working conditions have shown that even a fairly substantial body of laws is just not enough. Three things have to be addressed now :

- members States are not applying the directives anything like properly;
- some provisions of the directives are so weak as to be useless;
- the existing legislative framework needs to be filled out with a Community policy based on the directives, but which also adds other policy instruments.

The Commission served notice of its intention to adopt an action programme on health and safety in 2002. As yet, it has given no details of what might be included in it. The European employers, via UNICE, made their positions clear in September 2000. They want the strict minimum of Community legislation and offer a somewhat rosy assessment of working conditions. The Economic and Social Committee has also published a report on Community health at work policy. On the trade union side, the workers' representatives on the Luxembourg Advisory Committee for Safety and Health have produced a statement spelling out their proposals for a new impetus for Community action. It was approved by the ETUC Executive Committee in a resolution along the same lines, adopted on 15 June 2001.

A disturbing picture of the health impact of working conditions

Working conditions are getting worse for many groups of workers. The European Union needs to set up ongoing monitoring of working conditions. Work intensification and job insecurity are leading to musculoskeletal disorders, stress and burn-out, and a high accident rate among temporary workers. Health gaps between workers are widening.

The reopening of national debates and concerted labour action

National debates on health at work are now being set rolling again. Common concerns are emerging: how to enforce compliance with the rules, how to address changing patterns of work, how well have the prevention policies pursued in recent years performed? In some countries, the debate has gone beyond institutions and is backed up by labour action. Generally, demands related to safety, health and dignity at work have been increasingly frequent themes in industrial disputes across Europe.

The need for a Community policy debate

The different national debates have not so far led to a real Community debate. The Commission has failed to give a strong political impetus. The Commission's own material and human resources for health at work have shrunk alarmingly. The statement reviews the role played by the other Community institutions, pointing out how little cooperation is taking place between them and stressing the need for the Luxembourg Advisory Committee to have a more prominent role.

Wanted : a detailed assessment of the application of the Directives

The statement stresses the importance of a Community debate based on a political assessment of the application of the Directives. The general level of application of the Directives is still very patchy between but also within countries, by industry sector, category of worker and type of firm.

Harmonization of legislation : the basis of Community action on health at work

Harmonization of legislation has a mixed agenda, and the issues have not gone away:

- to give similar protection of workers' lives and health in the different Community States;
- to ensure that competition and free movement of goods do not push health at work into second place.

Legislative harmonization must be finished off in line with the following priorities:

Ensure consistency of Community legislation

The statement calls for :

- new EU legislation to cover all physical factors;
- the revision of the 1986 Noise Directive;
- expedited development of Community exposure limits for chemical hazards;
- the same level of effective protection for all EU workers against chemical hazards, especially carcinogens;
- revision of the Asbestos Directive;

The full text (in French and English) has just been published by the TUTB and ETUC (see p. 43 TUTB publications), and can also be found on the TUTB website. Other documents on the debate on Communities workplace health policies can be found at : http://europe.osha.eu.int/systems/strategies/future/

- revision of the Working Time Directive. We propose to cut the maximum weekly working hours from 48 to 44, and to scrap the provision allowing individual derogations other than collectively-agreed ones;
- a comprehensive Directive on ergonomic issues, with a special focus on musculoskeletal disorders;
- more attention paid to workplace mental health. Community legislative activities must be stepped up and programmes of action brought in to address problems like stress and bullying at work.

Extend Community health at work legislation to all EU workers

The statement calls for :

- the scope of Directives to be extended to include domestic staff and self-employed workers;
- effective access to the preventive system for all workers. In particular, measures relating to coverage of workers by specific health and safety representatives; coverage of workers by multidisciplinary preventive services; improvements in labour inspection systems; extending the employer's safety obligations to everyone over whose working conditions he exercises control.

A strategy for workplace health must put a special focus on small and medium-sized firms. The statement sets out a series of different approaches which could usefully be combined.

For a review of all Community policy instruments

Directive-led harmonization should be supplemented by other policy instruments.

- The Member States clearly remain predominant in developing a national strategy on workplace health.
- The Social Dialogue could help improve the application of the Directives at both industry and inter-industry level.
- The European Union could more routinely supplement Directives with general guidance documents.
- European standardization still plays an important role.
- Interaction between the different Community agencies should be improved.
- Workplace health needs to be made more central to Community research policies.

Linkages between health at work and other Community policies

Market rules and health at work

Market rules on work equipment, personal protective equipment and chemical substances and preparations pay too little heed to workplace health imperatives. That should be improved by:

- setting up effective market control systems;
- a systematic feedback of experience of workplace health problems actually encountered to inform and improve market rules;
- closer trade union involvement in technical standardization work in both the national and European standards bodies.

Gender equality and health at work

The statement underscores that equality and health at work are inseparable issues. It calls for a revision of the Maternity Directive. It stresses the importance of a proactive policy to achieve gender balance in work. The criterion of healthy work is conditions which allow both sexes to access it for the normal length of a working life without damage to their health.

Employment policies and health at work

Health at work provisions can have an input into employment policy because quality of work is a factor which increases access to and retention in safe and healthy jobs.

- The coherence of preventive measures must be assessed over the normal length of a full working life.
- Integration of people with disabilities into the workplace is a priority.
- Health-based recruitment must be actively opposed.
- The employment policies should also be audited for their impact on health at work.

Social security and health at work

Attempts to harmonize the conditions for recognition of occupational diseases have conspicuously failed. Questions arise about the relevance of a policy based on non-binding instruments when Directives can now be adopted under new article 137 of the Treaty.

Public health and health at work

The statement calls for Community public health policies to accommodate working conditions. It sets criteria for a policy to promote workplace health.

The environment and health at work

Worker participation machinery should be set up through which to give shopfloor health at work reps wider environmental powers is a trade union priority. The revision of the Seveso Directive should put a bigger focus than has so far been the case on the environmental protection role of workers and their representatives.

The international dimensions of Community health at work policy

EU enlargement is a major challenge for health at work. Taking over the *acquis communautaire* (established body of Community laws and regulations) must mean more than just implementing the rules - it must lead to real improvements in national situations. That requires substantial funding. A Community Fund for the improvement of the working environment is needed.

The statement calls for:

- more systematic cooperation with the ILO;
- an assessment of the potential effects of the WTO Agreements on Community health at work policy.

Laurent Vogel, TUTB Researcher
lvogel@etuc.org

Revision of the Machinery Directive

The New Approach's basic tools for ensuring the free movement of safe machinery - the Machinery Directive and harmonised standard EN 292 Safety of Machinery - are currently under scrutiny by the European engineering community. The Commission has recently put up a proposal to the Council to overhaul the Machinery Directive[1]. The document was made available to all stakeholders at the beginning of 2001 on Directorate General Enterprise's web site[2].

The basic technical standard for the safety of machinery - EN 292 - is at present under revision by the Special Group set up within CEN Technical Committee TC 114, Safety of Machinery (see "EN 292: the internationalization challenge", p. 35). This key document was drawn up under a mandate handed to CEN by the European Commission and supports the essential health and safety requirements (EHSRs) for the design and construction of machinery and safety components, introduced in Annex I of the Machinery Directive.

Between them, these documents lay down technical rules and regulations which affect mechanical engineering right across the board. They apply to nearly all stationary and movable machinery for commercial, industrial and private use.

The Machinery Directive, in particular, sets legal requirements that affect the health and safety of millions of machinery operators across Europe. It provides a benchmark for devising a common vocabulary on accident prevention and the improvement of working conditions.

This makes it essential for trade unions to have a say in the discussions around these two key documents, to hammer home the top priority - the highest standard of health and safety protection for workers.

Taking stock

Many machine manufacturers and buyers are now aware of the Machinery Directive as they gather experience of how it works in practice. Inspection bodies, and national and European institutions, on the other hand, have built up significant experience as a result of their involvement in the operation of the Directive since it became fully applicable to all types of machines in 1995. The free movement of goods and the removal of technical barriers to trade have received a positive boost. But in all that time, no systematic assessment of what the Machinery Directive has meant for the safety and health of workers in Europe has ever been done, and high machinery-related accident and injury rates continue unabated in many European countries.

One fundamental issue is whether a revision of the Directive is desirable or not. In attempting to answer this, it will be useful to refer to the experience gained since the Directive came into force. In this context, the Molitor Report, the 'Questions and Answers' from Member States, the technical data sheets from Notified Bodies, prosecutions in relation to machinery and actions against mandated standards represent "the state of play so far" on the Machinery Directive, and - as such - will be briefly analysed.

The **Molitor Group** was set up in 1994 by the Commission in order to assess the impact of Community and national legislation on employment and competitiveness, and to frame recommendations based on its assessment[3]. At that time the Machinery Directive, which was one of the objects of study, had not yet been transposed in all Member States. The Molitor Group failed to reach a general consensus, however, and ended up by putting forward to the Commission a string of non-consensus proposals, including:

- to clarify the definitions and scope of the Machinery Directive;
- to simplify the assessment procedure for placing machinery on the market;
- to bring down the cost of making machinery compliant;
- to remove uncertainties caused by overlapping between different directives.

Not all proposals were accepted by the Commission, which - however - expressed a positive opinion[4] on the Group's analysis.

The ***Questions and Answers*** report contains problems and solutions emerging from the meetings of various working groups of member states' experts. The document shows diverging interpretations on several topics, ranging from the scope to market surveillance, from the duties of notified bodies to the interconnections with other directives, and finally from safety components to second-hand machinery. The Commission published questions and answers in the document "Useful Facts in Relation to Directive 98/37/EC", which also contains a number of *information sheets* elaborated by the European Co-ordination of Notified Bodies for Machinery and Safety Components in order to help them in verifying products in accordance with the Directive's requirements. This information - endorsed by the Member States - along with technical details in relation to specific products (woodworking machines, safety components, presses, etc.), also contains evidence of uncertainties on key procedural aspects: how to assess the safety of a product not designed in line with harmonised standards; how to manage failings detected in standards; how far should the Notified

[1] This article refers to document COM (2000) 899 final of 26 January 2001. The process of revising the Machinery Directive started 3 years ago. Past TUTB comments on the revision of the directive can be found in "Overhauling the Machinery Directive", *TUTB Newsletter* n° 11-12, June 1999, pp. 6-9.

[2] http://europa.eu.int/comm/enterprise/mechan_equipment/machinery/direct/proposal.htm

[3] See "Molitor Group: deregulation assault on health and safety", in *TUTB Newsletter* n° 1, October 1995, pp. 2-3.

[4] Doc. SEC[95] 2121 final.

Body check the manufacturer's declarations in an EC type-examination, etc.

Published annually, *Questions and Answers*, plus the information sheets from Notified Bodies, represent 'living documents' subject to continuous modification and, as such, not binding *important opinions* to be used as guidance.

As well as **safeguard clauses**[5] against specific machines and safeguard actions against harmonised standards, appeals can also be made against standards moving to the Formal Vote stage which precedes ratification and subsequent publication in the *Official Journal*. These appeals are important as being directly associated with a potential safeguard action against the published standard.

Around 17 harmonised standards and draft standards (prEN) have been challenged to date by one or more national authorities following serious accidents to workers using work equipment designed in compliance with those standards (see box).

Appeals and safeguard actions against standards provide a significant insight into the European standardisation process. Standards are a ground for compromises where harmonization of design solutions is often the result of contingent circumstances (i.e. the availability of resources or the interest in a particular manufacturing sector). The difficulty of reaching common agreements and ensuring full participation by all stakeholders often results in solutions which might not best address workers and consumers' expectations.

Unfortunately, New Approach Directives do not provide a procedure by which for public authorities to verify or approve either at Community or national level the contents of harmonized standards which have been adopted with the procedural guarantees of the standardization process. There is no provision for systematic verification of the technical contents of harmonised standards.

The Market

The Machinery Directive allows self-certification of almost 95% of all machines sold in Europe: manufacturers can perform their own testing and maintain their own Technical File, and apply the CE mark themselves. Third party certification is required for machines which are considered to be especially dangerous, and listed in the section known simply as Annex IV. It lists devices that cut, compress and inject, but this is far from covering all machines capable of causing serious injury or death. As a result, manufacturers of most of the machinery placed on the market will not have to prove how design measures meet the essential requirements. The health and safety of millions of machinery operators largely depends on manufacturers' sense of responsibility.

European standards and draft standards submitted to the safeguard clause

- **prEN 12622**: "Press brakes"
- **EN 81-3**:2000 "Safety rules for the construction and installation of lifts - Part 3: Electric and hydraulic service lifts"
- **EN 692**:1996 "Mechanical presses - Safety"
- **EN 848-3**:1999 "Safety of woodworking machines - One sided moulding machines with rotating tool - Part 3: Numerical Control boring machines and routing machines"
- **EN 1501-1**:1998 "Refuse collection vehicles and their associates lifting devices - General requirements and safety requirements - Part 1: Rear-end loaded refuse collection vehicles"
- **prEN 12999**: "Cranes - Loader Cranes"
- **EN 11681-2**: 1998 "Machinery for forestry - Portable chain saw - Safety requirements and testing - Part 2: Chain saw for tree service"
- **EN 708**:1996 "Agricultural machinery - Soil working machines with powered tools - Safety"
- **EN 693**: "Machine tools - Hydraulic presses"
- **EN 703**:1995 "Agricultural machinery - Silage cutters - Safety"
- **prEN 280**: "Lifting platforms"
- **prEN 12750**: "Safety of woodworking machines - Four sided moulding machines"
- **prEN 12609**:1996 "Truck mixers - Safety requirements"
- **prEN 1551**:2000 "Safety of industrial trucks - Self-propelled trucks over 10000 kg capacity"
- **prEN 1459**:1998 "Safety of industrial trucks - Self-propelled variable reach trucks"
- **EN 1726-1**:1998 "Safety of industrial trucks - Self-propelled trucks up to and including 10000 kg capacity and industrial tractors with a drawbar pull up to and including 20000 N - Part 1: General requirements"
- **prEN 12840**: "Machine tools - Safety - Manually controlled turning machines with or without automatic control"

[5] See "Standardization of mechanical presses litmus test of the working of the Single Market" and "France invokes safeguard clause against a European standard", *TUTB Newsletter* n° 5, February 1997, p. 1 and pp. 13-16; "The United Kingdom's safeguard clause on EN 708 - Agricultural machinery", *TUTB Newsletter* n° 10, December 1998, pp. 12-13.

The Commission proposal

Scope

The directive's scope and definitions have been substantially revised. New products now covered by the directive include construction site hoists, devices for lifting of persons with reduced mobility, and cartridge-operated fixing devices. On the other hand, a series of products are now excluded from its scope: motors of all types and industrial plants taken as a whole, among others.

The proposal includes major amendments for two categories of products - safety components and partly-completed machinery - and adds a new category of products: machinery which present no risks to safety and health. These three topics will be looked at in detail.

The existing Directive identifies **safety components** as components intended to perform a safety function, whose malfunction may cause danger to exposed persons. When placed separately on the market, safety components are subject to the same certification procedures applicable to machinery, but they do not bear the CE marking under the Machinery Directive[6]. The new proposal replaces the definition with an exhaustive and restrictive list of safety components (which the Machinery Committee set up by the directive will have the power to amend). Unlike the consolidated directive, safety components are now defined as "machinery". When placed separately on the market, they are subject to the same certification procedures as machinery.

The existing directive allows free movement of machinery intended to be incorporated into machinery or assembled with other machinery, provided the manufacturer attaches to them a "declaration of incorporation". They do not bear the CE marking under the Machinery Directive. In the document *Comments on Directive 98/37/EC*[7], they are defined as *quasi-machinery* (comment No. 133). In the new proposal, quasi-machinery is now a new object expressly described as *partly completed machinery*. These products are defined as virtually completed machinery which cannot perform a specific application: the directive will not apply to them in its entirety. As in the consolidated text, they benefit from free movement when accompanied by a "declaration of incorporation". The, manufacturer will also have to provide a "notice of assembly" containing instructions for their safe incorporation into the final system.

The new proposal permits machinery for which a risk analysis demonstrates the absence of any intrinsic safety and health hazard to move freely. But the manufacturer must affix the CE marking on the product, and keep the risk analysis available for inspection by competent national authorities.

Legal provisions: Member States

Cooperation between national competent authorities is now emphasized. Article 19 invites Member States to exchange information with one another to achieve uniform application of the directive. Article 18 specifies that Member States should divulge information pertinent to the safety and health protection of persons, even if covered by professional secrecy.

Finally, relevant national provisions on the installation and use of machinery will be given visibility at European level. Article 15 now invites Member States to provide all stakeholders concerned and the Commission with information on their regulatory framework and future strategies on this subject.

Legal provisions: Manufacturers

The proposal emphasizes a number of duties which are part of manufacturers' obligations. New recital No. 11 invites manufacturers of products which may be used by *non-professional* operators to take into account their peculiar limitations and expectations. Recital No. 19 specifies that before placing a product on the market, manufacturers shall carry out a *risk analysis* intended to identify the ESRs applicable to the product. The revised Annex I clarifies manufacturers' obligations to design machinery taking into account *foreseeable abnormal situations*[8]. Finally, manufacturers' duties to draw up adequate *instructions* have been further clarified (machinery connection to utilities, recovering from accidents or breakdowns, identification of workstations, maintenance, etc.).

Conditions for placing machinery on the market - Conformity assessment

The conformity assessment procedure for machinery (and safety components) laid down in the new proposal is almost unchanged from that in the existing directive, except for machinery presenting serious hazards (listed in Annex IV). Hazardous machinery may no longer be declared in conformity to the ESRs without a third party control: the technical file will be always checked by a Notified Body. On the other hand, a full quality assurance procedure is introduced as an alternative to EC-type certification. This consists of a comprehensive third party examination of the design, production, inspection, testing and storage policies put in place by the manufacturer. The Notified Body will examine the quality system and inspect the manufacturer's premises in order to ascertain that the quality system ensures that the machinery will comply with the directive's provisions. After his quality system has been approved, the manufacturer may affix the CE marking on each machine and draw up an EC declaration of conformity.

Finally, the Annexes are designed to give all stakeholders a clear formulation of the different conformity procedures: the declaration of conformity and declaration of incorporation have been simplified, while the contents of the technical file are specified in a separate annex.

[6] Article 8, 1. 2.

[7] European Commission, 1999.

[8] Preliminary observation No. 2 and principles of safety integration, 1.1.2. [a].

The TUTB's view

Generally-speaking, the Machinery Directive still seems to suffer from ambiguity and confusion in the description and identification of products to which it applies, as well as the application of CE marking. Clarification - a key aim - may not be achieved.

1. On the '**definitions**', if the Machinery Directive is to work, the different parties involved in the implementation of its provisions must know whether it applies to them or not. The Directive's definition of machinery is wide: the advantage of a broad definition ensuring free movement for a large number of products can be detracted from by difficulties in formulating adequate descriptions. The new Article 1 - "Scope", and Article 2 - "Definitions", give a new statement of: machinery *stricto sensu*, assembly of machinery, interchangeable equipment and partly-completed machinery. However, there is still undifferentiated use of words like machinery, drive system, machine, single machine, and device. Further on in the text, new terms are introduced: complete machine (article 13, [a]), complex installations - parts of machinery (Annexe I, 1.2.4.3.). To illustrate the ambiguities, partly completed machinery is supposed to be incorporated into other machinery to form :
- a machine covered by this Directive - Recital 12,
- a *single* machine to which this Directive applies - Article 2 (i).

Article 13, moreover, states that partly completed machinery is supposed to be incorporated into a *complete* machine.
The TUTB believes that allowing these different terms to coexist could create misunderstanding for all parties involved in the implementation of the Directive.

2. **CE mark provision and meaning**. The CE mark plays a key role in both market surveillance strategies and employers' confidence in EC-marked products. The provisions are not clear for *safety components* and *quasi-machinery*. Under the existing Machinery Directive *safety components* are differentiated from machinery, and are not CE-marked because of the express exclusion in Article 8.1.2nd sub-paragraph. The draft proposal defines safety components as *machinery*, does not expressly exclude safety components from being CE marked, and also lays down - in the 2nd preliminary observation of Annex I - marking obligations for all machinery. The ambiguity is patent, therefore. The same holds good for *quasi-machinery*, which is not within the scope of the existing Directive and so not CE-marked. But as the proposal does bring quasi-machinery within the scope of the directive, it is unclear whether it must be CE-marked or not. Finally, it is difficult to understand the rationale for CE-marking machinery for which the directive has no relevance in terms of health and safety. It may be wondered whether CE-mark is still proof that the machine meets the EHSRs applicable to it. This issue should also be seen in the light of the key role played by the CE mark for control of the market surveillance strategies. If buyers' confidence in the CE mark is to be maintained, it cannot be associated with machinery which the manufacturer has excluded from the Directive's EHSRs.

3. The explicit exclusion of whole industrial plants from the scope of the directive is welcome: but it should be made clear that the directive would apply to all **subsystems** performing specific operations identifiable in any process plant (e.g., the fuel burner system of steam generators).

4. Another source of confusion is introduced with the **risk analysis** mentioned in Recital No. 19 and Article 12. The risk analysis concept is increasingly widespread in Community industrial terminology, and so its inclusion is welcome. *Risk analysis* is the process by which the machine is limited in space, its hazards are identified, and its risks are estimated. It provides the information needed to perform the *risk evaluation* which is intended to determine whether risk reduction is required or not. At this stage, designers can apply the *principles of safety integration* detailed in Annex I, 1.1.2, which essentially coincide with the risk control strategies undertaken to: 1. engineer mechanical risks out of the process, 2. eliminate hazards by means of safety technology (guards and safety devices), and 3. give instructions and warnings where hazards can be neither designed out nor guarded against.

In light of these principles, the draft proposal can be said to contain two inaccuracies:
- It requires manufacturers to carry out a risk analysis before applying the conformity assessment procedures and then placing the product on the market. *Manufacturers' duties go much further than that: after the risk analysis they must evaluate the risk and implement the necessary risk reduction measures by applying the safety integration principles detailed in Annex I, 1.1.2 of the existing text.*
- It requires manufacturer to carry out the risk analysis described in Annex I, 1.1.2: *Annex I, 1.1.2 is greatly concerned with risk reduction strategies, but not risk analysis - it is rather a prerequisite to it.*

The TUTB therefore suggests using the results of the work done on mandated harmonised standards EN 292:1991 and EN 1050:1996, which give a coherent description of the whole risk management strategy for designing safe machinery.

5. **Safety components** were introduced by Directive 93/44/EEC amending Directive 89/392/EEC in a bid to help manufacturers improve the safety level of machines already in use, and also to regulate the increasing use of programmable electronic systems and computer control of safety-related functions. Firms operating giant presses, for example, began looking at bringing in safety light curtains as systematic protection for operators against the risks of

crushing. Laser scanners were introduced to protect zones around dangerous machines, while microprocessors were used for key-operated safety switch for interlocks and for safety limit switches. However, the introduction of safety components in the text of the directive gave rise to major problems. On one hand, it is essentially unclear what products fall into the category of safety components within the meaning of the directive: except for components listed in Annex IV, manufacturers still have the right to decide and declare whether the components they intend placing on the market are safety components or not. On the other hand, it is felt by many that the essential health and safety requirements of Annex I are not suitable for such products. One practical example illustrates this point. Numerically-controlled (NC) woodworking machines will always involve the traditional risks of contact, projection of pieces, crushing: but new types of malfunction may produce hazardous situations. In fact, on such computer controlled machines, visible and identifiable malfunctions on traditional electromechanical components are now giving way to a new category of "intangible" faults of electronic modules and systems resulting from software errors, bus connection failure, sensing device malfunctions. Software error-related accidents involving industrial robots and metal forming machines have already been documented. In conclusion, the proposed text does not go far enough in providing information to customers on potential hazards resulting from the wrong choice of safety components, while Annex I does not provide technical information on essential requirements specific to such components. The proposed text fails in the main aim of helping employers needing to upgrade machinery already in use by integrating safety devices.

6. The TUTB welcomes the identification of **quasi-machinery** as a reality emanating from the technological trend towards using integrated complex systems at the workplace, where the single-function machine is increasingly supplanted by systems comprising mechanical components, logic controllers, sensing devices, and new materials. However, the draft proposal does not go far enough in addressing the interlocks between the duties of subassembly suppliers and final assemblers and does not help clarify the responsibilities of each player. Evidence from the workface suggests that the overall risk analysis of complex machinery often goes no further than boundaries and interfaces between the different components, and crucial issues like operability, ergonomics and maintenance of the whole machine are not taken into account by final assemblers. There is a general understanding that assemblers of complete machinery should be given all information needed to carry out the full risk analysis and safe assembly. But their task is complicated by component suppliers' holding back on the quality and quantity of commercially sensitive information made available. As a result, incompetence on both sides (suppliers and assemblers) may lead to a final machine being put out with an incomplete risk analysis and an instruction manual simply cobbled together from bits of the documents volunteered by the different suppliers. In an accident, it would be very difficult to trace back events and identify failings at the interface between boundaries (components-main system). The draft proposal should stress that partly completed machinery will never come with more than a partly-completed hazard analysis, and its limitations and boundaries must be communicated to the final assembler. In short, suppliers of quasi-machinery should be fully accountable for their products, by identifying and complying with the relevant EHSRs.

7. On the introduction of the **Full Quality Assurance** procedure, Quality Assurance (QA) is largely concerned with clear specifications, auditing and reporting back, monitoring to identify and correct deviations in materials, behaviour and systems, sample checks and training. As such, QA schemes which exist or are being implemented should lead to improvements not only in product quality, but safety and health standards, too. But that would be to move from product safety certification to manufacturer certification, without third party interference at product level. Arguably, this could reduce the specific product health and safety requirement-focused controls and tests, and bring in an alternative system geared to guaranteeing a completely different aspect - i.e., the homogeneity of the characteristics of all samples placed on the market, which are not necessarily related to the specific product health and safety requirements.

8. The TUTB cannot accept the removal of Recital No 18 on **trade union access** to the standardisation process. This Recital was added at the behest of the European Parliament, in the light of the contents of Article 5.3. - inviting Member States to facilitate the social partners' participation in the drafting and monitoring of harmonised standards. This participation principle was also stressed in the Council Resolution of 28 October 1999 (on the role of standardisation in Europe), Article 39. In conclusion, as well as dropping Recital No 16, the proposal from trade unions to expand and improve Article 5 (with the obligation for Member States to periodically report to the Commission on the provisions for informing and consulting the social partners on European standards mandated under directives) has been disregarded.
It should also be noted that Proposal No 8 (General proposals) from the "Molitor Group" invited the Commission to consult consumers, business and workers by means of an *effective, systematic, and timely* strategy.

9. Recital No 14 - which clearly states that the **ESRs** must be complied with to ensure that machinery is safe - has been dropped. We believe that the

Machinery Directive should contain such a concise recital, which adequately introduces the obligation of the existing Article 3 and the 2nd preliminary observation of Annex I. In particular, Recital 14 should be re-introduced to support the new Recital No 19 defining the obligation for manufacturers to carry out a risk analysis for machinery to be placed on the market.

10. As regards Annex I of the Commission proposal, we have three main comments.

Ergonomics. The Commission proposal contains a short separate paragraph (1.1.3) for ergonomics. The description is fairly general and limited. It should be filled out to include mental strain, physiological strain and relevant health effects. There is no acknowledgement that disregarding ergonomics can lead to accidents. A reference must be included that sitting postures are to be preferred to standing ones when designing machinery, and the possibility of changing positions. The same description must include a reference to adjustable machinery to accommodate different populations. The design of information from indicators should also incorporate ergonomic principles.

Controls (1.2.) "Errors in logic do not lead to dangerous situations" has been deleted, to make way for the new provision "human error during operation does not lead to hazardous situations". The TUTB disagrees with this change, since accidents can be caused by design errors in the control system architecture or by faulty cabling, resulting in - for example - an inability to stop the machine when needed, or a hazardous unexpected start-up. Moreover, employers are increasingly relying on programmable logic controllers in order to modernize and upgrade existing manufacturing systems. These components deliver many benefits but also add a level of complexity - particularly in relation to the associated software - which may adversely affect workers' safety. To illustrate this point two examples may be given: a safety mechanism may be neutralized by a design error in the software supervising operating procedures, or unplanned interactions may occur between controls. On the other hand, employers themselves might be able to modify software to increase production or adapt to changed operating conditions, causing - for example - a failure to follow the proper machine control sequence. In conclusion, TUTB calls on the Commission to reinstate the dropped paragraph, and to cover future potential risks associated with increasing workplace use of software combined with hardware to create a programmable system or product.

Contents of instructions (1.10.). The manufacturer's obligation to provide instructions containing drawings and diagrams has been dropped. The TUTB disagrees with this change, since graphs and charts are essential to make buyers aware of start-up operations, servicing, maintenance and repairs. More importantly, lack of this information will preclude employers from properly discharging their duties to inform workers about the conditions of use of machinery.
To conclude on Annex I, the formulation of the essential health and safety requirements has been simplified, but explanatory sentences have been sacrificed (as many as twenty parentheses containing cases and examples have been dropped).

Accidents waiting to happen

Turning to ways of tightening up the legislation's accident and injury prevention provisions, we suggest redrafting the text recommending that manufacturers make the best use of operators' experience with machines, because risks unknown to them in the design phase might only appear in daily workplace use. It should also be stressed that machinery risk analysis, especially hazard identification, cannot be performed without a knowledge of the accident history of machinery. In this context, market surveillance activities could be improved by recommending that national authorities regularly disseminate data on machinery accidents.

How accidents happen

Many hazardous machines are not listed in Annex IV: construction (cranes, excavators and mixers), paper and printing (cutting, coating and fibreboard machines), textile and leather (spinning and knitting machines), food and beverage, are just some of the industry sectors where accident fatalities remain high. A growing number of diligent manufacturers of these hazardous machines are investing heavily in ensuring that their products are fully compliant with the Machinery Directive. They are also finding it relatively painless, even without the support of C-standards (which historically are being developed for Annex IV machinery first). Documentation and information for users is clear and exhaustive: feedback from the workplace is continuous.
But some manufacturers are still not performing proper risk assessments, which they see as a costly exercise holding up the placing of their product on the market. They point to the lack of harmonised standards to justify their design solutions, and implement poor design solutions, which will be backed up by low-grade technical files and insufficient information for use. Their irresponsible attitude will be found out by conscientious employers, who will likely source elsewhere if they can. As a result, they will be held to account only after an accident. And that is not acceptable.

Lessons learned

Accident data bases to date have been compiled at the high price of numerous deaths and billions of euros worth of equipment scrapped. But there is no Community action to ensure that lessons are learned. An injury data collection and information

exchange system for machinery, classified by typology, could help "know the enemy": details of accidents or near misses occurring on a particular machine - computer-collected at Community level - would trigger an automatic response to detect potential deficiencies of the machine involved in terms of intrinsic safety, protection measures and information for use. This data would then instigate appropriate cross-cutting actions at Community level. A second - but no less important - step could be to develop statistics based on EHSR groups, and identify corrective actions: *maintenance*, for example, could be the focus of a campaign to raise awareness among manufacturers to improve safety for machinery cleaning or repair staff by better identifying danger zones. A third major benefit could be that accident data on specific group of machines could drive the framing of C-standards to provide manufacturers with 'state-of-the-art' design solutions and a common hazard identification strategy.

Documentation is key

The requirement to always check the technical file of machinery listed in Annex IV is welcome. But that still covers only a small percentage of all machinery sold in Europe. The TUTB believes that all machinery manufacturers should provide users with a description of the means used to comply with the applicable essential health and safety requirements, along with the methods adopted to eliminate all hazards. The description of the risk assessment carried out on the product should also be provided to users as an integral part of the instructions for use.

The existing directive provides for all this information to be included in the technical file, which is examined - before the product is placed on the market - only for machinery listed in Annex IV and designed without the support of harmonised standards covering all applicable ESRs.

For most machines, therefore, manufacturers do not have to show how their design meets the EHSRs: their diligence in carrying out safe design is *presumed*. Competent national authorities cannot access this information before machinery is placed on the market, so actions will be triggered only when design deficiencies show up in practice.

The TUTB believes that prevention is better than cure: end users and competent national authorities must be given access to technical documentation for machinery with a proven track record of potential to cause harm. There is evidence that poor quality documentation is the first symptom of poor design. Also, making data on machinery accidents more widely available could help identify and defeat the 'enemy': it could encourage authorities to target their market surveillance initiatives more tightly and raise awareness amongst users to create the first barrier against unsafe machinery by getting them to routinely examine the documentation that comes with the machinery they buy.

The users' voice

The proposal requires manufacturers - Annex I, 1.10.2, *Contents of the instructions* - to remind users of their obligation to comply with the Work Equipment Directive. This is a welcome new requirement - although it might have been better placed elsewhere in the directive. Machines are designed for an *intended* use. They are then operated in a workplace characterized by: job mobility, area of performance, ongoing operations in surrounding areas, specific hazards in the area, relative age of the workforce and job experience, applicable health and safety rules, and specific abnormal or unforeseen problems. So, poor communication between manufacturer and customer could result in an unsafe machine. In this context, machinery guarding has historically been a critical issue. Guarding could be appropriate in its own right, but could prove unsuitable in relation to the movement of materials on-site, the specific job procedures in place, production rates, and particular needs for maintenance access. A machine which is *optimally* designed in itself could then turn out to be unsuited to a specific workplace. The resulting accident would be the result of a poor understanding of the risk assessment required by the Machinery Directive and its relation to the risk assessment which employers must perform.

The TUTB questions whether the current system helps to get machines perfectly integrated in the workplace and used in the conditions foreseen by the designer with an adequate understanding of the customer's work organisation and specific work processes. In particular, the TUTB would like to see thought given to the possibility of forcing manufacturers to systematically follow-up their machinery. For most manufacturers - those who have been trading sensibly and reliably in the past - systematic feedback of operators' experience is common practice. For many others is not. So, the Machinery Directive should contain provisions requiring manufacturers to collect users' feedback and incorporate it in the technical file and information for use. In so doing, a communication link between manufacturers and users would be formalized, as an essential step to integrating the risk assessment carried out by both manufacturers and employers. The knock-on benefits for standards would be to make them more people-centred by exploring and taking into account the person-machine interface in the full range of conditions of use. ■

Stefano Boy, TUTB Researcher
sboy@etuc.org

A TUTB survey

The Implementation of the Machinery Directive

12 years after the Machinery Directive was adopted, there has still been no comprehensive overview of its practical application in the different EU countries. With the directive now undergoing revision, it is high time that more information was available on national practices and the needs to be addressed by the amended rules. Some Member States have already laid out their preferred guidelines for revising the Machinery Directive but there is no comparative evaluation of the issues raised by member states with different market surveillance systems by which to point out common problems and priorities.

The TUTB will be conducting detailed assessments of national market surveillance systems and issues raised by the application of the directive, like:

- the monitoring of goods placed on the market;
- the legal and practical status of standards and how much attention the systems in place pay to workplace feedback, inherent safety, ergonomic criteria, protection from exposure to toxic substances, etc.;
- the activities of notified bodies;
- the interpretation of accident statistics;
- the integration of work equipment into the workplace;
- improvements to the 'state of the art' in machinery design;
- the role of trade unions;
- the management of complex machines;
- the complexities of cooperation between a range of players: manufacturers and importers, different national public authorities, the notified bodies, standards institutions and Community agencies.

The survey will cover four countries – France, Italy, Germany and Finland – to produce a comparative general report with the following partners: the French Ministry of Labour; Strasbourg University's Institute of Labour Studies (which carried out an initial national report to test out a methodology); the Finnish Institute of Occupational Health; the National Institute of Occupational Safety and Prevention (ISPESL, Italy) and KAN (Commission for Occupational Health and Safety and Standardization) (Germany).

The final report is expected by early 2002 and should be published in the first half of 2002.

Noise Directive : a step forward under the Swedish Presidency

Social Affairs Council reaches political agreement

The last Social Affairs Council under the Swedish Presidency, in June 2001, reached a (unanimous) political agreement on a common position on a draft Directive laying down minimum requirements for the protection of workers from risks arising from exposure to noise, especially the risk to hearing. The new Directive will be an individual directive under the framework directive, and will eventually replace the existing Directive 86/188/EEC.

The proposed Directive will be the second separate Directive after the "splitting" in 1999 of the Commission's original 1993 proposal, which combined in a single instrument four types of physical agents (noise, mechanical vibration, optical radiation and electro-magnetic fields and waves)[1].

The draft Directive fixes exposure limit values and exposure action values. The exposure values - 80 dB(A) and 85 dB(A) - are based on ambient noise levels and trigger different degrees of protective measures. So, when the lower exposure action value is reached, the employer must make individual hearing protectors available to the workers, and provide the workers and/or their representatives with information and training on the risks.

Values set in the amended proposal for a directive

Exposure limit values : $L_{ex,\ 8h}$ = {87}dB(A) and p_{peak} = 200 Pa respectively

Upper exposure action values : $L_{ex,\ 8h}$ = 85 dB(A) and p_{peak} = 200 Pa respectively
Lower exposure action values : $L_{ex,\ 8h}$ = 80 dB(A) and p_{peak} = 112 Pa respectively

Once the upper exposure action value is reached, the employer must establish and implement a programme of measures to reduce exposure, the workplace must be marked with, and workers must use their hearing protectors. This is also the level at which workers are entitled to hearing checks. Where such checks reveal identifiable hearing damage, the workers must be informed and the employer must review his risk assessment. The employer must also take into account the advice of the doctor or competent authority in taking measures to eliminate or reduce risks.

The draft directive sets an exposure limit value of 87 dB(A) and peak sound pressure value (P_{peak}) of 200 Pa which are not to be exceeded! But the assessment of the noise exposure level takes account of the attenuation provided by the individual hearing protectors worn by the worker, which must be worn when the value exceeds 85 dB(A).

Workers engaged in sea and air transport who were excluded from the scope of the 1986 Directive are now included. But a longer transposition period of five years on top of the three years provided for application of the directive is provided for workers on-board seagoing vessels.

How big a risk is noise today?

Noise is one of the most widespread workplace hazards[2]. Some still regard it as a commonplace risk which is "part and parcel" of any work. In the European Union, 50 million workers report being exposed to intense noise (answering "yes" to the question: are you exposed in your work to noises so loud that you have to raise your voice to talk to people?). And the number of "yesses" has gone up since the Foundation's first survey! A partial picture of the true number of people exposed to intense noise is revealed in a Eurostat study[3] showing that noise is the main cause of compensated auditory disorder. 18 419 cases were recognized in 1995, but this figure conceals wide variations in compensation systems. The between-country incidence varies more than 60-fold: from 10-20/million workers (Ireland, Spain) to 630/million workers (Finland), while compensable loss levels vary by a factor of four: from under 15dB hearing loss (Netherlands, Finland, Germany) to 50dB hearing loss required for recognition in Belgium, Ireland, and the UK. The other effects of noise are not reported at Community level.

A Finnish epidemiological survey[4] estimated the share of annual fatalities from work-related factors. The main cause of death was found to be circulatory system disorders, themselves caused by stress (especially linked to working hours, e.g., shift work) and noise. The author cites copious evidence in the literature of non-auditory effects of noise from an exposure level of 65 dB(A).

Community measures to protect workers

In 1986, the Council adopted a Directive under article 100 of Treaty of Rome (unanimous vote). Its aim is "*the protection of workers against risks to their hearing and, in so far as this Directive expressly so provides, to their health and safety (...)*".

[1] The Council of Ministers adopted a common position on the first Directive, which deals with vibrations, on 25 June 2001 after having reached political agreement at its 27/28 November 2000 session under the French Presidency. http://ue.eu.int/newsroom/main.cfm?LANG=2

[2] *Encyclopaedia of occupational health and safety* - 4th edition, ILO, Geneva.

[3] Dr Antti Karjalainen and Dr Simon Virtanen, *European Statistics on occupational diseases, Evaluation of 1995 Pilot data*, European Commission, 1999.

[4] Nurminen M., Karjalainen A., "Epidemiologic estimate of the proportion of fatalities related to occupational factors in Finland", *in Scandinavian Journal of Work, Environment & Health*, Vol 27 No 3, June 2001.

The Directive pre-dates the framework directive, and only lays obligations on the Member States, setting personal daily (discounting the wearing of individual hearing protectors) and weekly noise exposure levels (or maximum sound pressure values).

The directive sets an action value of 85dB(A) at which information and training must be given, hearing protectors worn and health surveillance provided, and a maximum value of 90dB(A); where this is likely to be exceeded, signs must be put up and access restricted, a programme of technical and organizational measures must be implemented, and the workers must wear ear protectors. From this value upwards, all measures are in each case subject to what is "*reasonably practicable*" - an expression never defined but which presumably intended to excuse the failure to take measures! On the role of workers and their representatives, the directive says that workers and/or their representatives "*shall be associated*" with assessment and measurement according to national law and practice, and that they shall have "*access*" to the results and data! No rules are laid down on the information, consultation or participation of workers and/or their representatives; they would not come until the 1989 framework directive.

For new plant and factories, the directive also requires the Member States to take appropriate measures so that "*the risks (are) reduced to the lowest level reasonably practicable, taking account of technical progress*", and that adequate information is made available about new equipment which may cause exposure above 85dB(A). It also specifies that the Council shall establish requirements according to which such articles "*when properly used, do not produce noise likely to constitute a risk to hearing*".

Finally, the directive provides that it will be re-examined by the Council before 1 January 1994 taking into account progress made in scientific knowledge and technology. The indications for measuring noise and checking hearing are detailed in Annexes. It was to be brought into force by 1 January 1990 (1 January 1991 for Portugal and Greece).

Implementation of this directive was to result in the revision of ISO standard 1999[5], while among measures to complete the single market, the Council was to adopt Directive 89/392/EEC under article 100A of the Treaty, which provides that machinery placed on the market must be so designed and constructed that airborne noise emissions are "*reduced to the lowest level taking account of technical progress*" and that manufacturers must declare the sound pressure level when it exceeds 85dB(A) at the workstation.

The adoption of the 1989 framework directive would also lead, through individual directives, to a gradual dovetailing of Community legislation covering different types of risks to which workers are exposed. At the end of 1992, the Commission published a proposal for a directive on physical agents, laying down common prevention principles for all agents, including noise. The Commission backed up its proposal with advances in scientific knowledge which certified that the risks incurred by workers are significant even from 75db(A)! But it again failed to take into account non-hearing-related effects *which are less occupationally significant than deafness-related ones*, and refused to cap exposure at lower levels[6]. On top of that, the European Parliament, in its Opinion of 20 April 1994, was to call for the examination of the noise element to be put back to 1 July 1995!

After that, not one Member State sought to bring this proposal to revise the Community rules on noise back onto the Council agenda until the Swedish Presidency in 2001.

What assessment ?

1. In 1986, the ETUC flatly rejected the legislative approach and the values adopted. It had campaigned for years to get the directive applied from 80dB(A) based on the Commission proposal[7] recognizing that there was a risk of deafness from this value. It also rejected the "**reasonably practicable**" approach as likely to dilute the employer's general liability. The ETUC had also campaigned against another aspect of the Commission proposal[8] which allowed measurements to be taken while individual hearing protectors were being worn, and so de facto raised the exposure level by 30 to 40 decibels. This was dropped from the final directive.

2. The detailed assessment made by the TUTB in 1991 based on the legislation transposing the 1986 directive revealed that **national legislation had been watered down**. And yet the Commission brought no failure to incorporate or infringement proceedings in the Court of Justice. When submitting its proposal for a Physical Agents Directive at the end of 1992, however, the Commission acknowledged the many problems that Member States had had in transposing the 1986 directive.

3. The current draft directive makes **advances** over the 1986 directive :
- the scope extends to all workers;
- the lower and upper exposure action values have been reduced from 85 to 80 dB(A) and from 90 to 85 dB(A);
- the upper limit is more clearly stated to be one that must ***under no circumstances*** be exceeded;
- the approach to health surveillance reflects the employer's obligations towards workers collectively rather than individually: reviewing the risk assessment, taking measures to eliminate or reduce risks, taking into account the advice of qualified persons or competent authorities, including assigning the worker to alternative work;

[5] ISO 1999:1990 (2nd edition), *Acoustics - Determination of occupational noise exposure and estimation of noise-induced hearing impairment.*

[6] Will the WHO (*Occupational and Community Noise*, Fact Sheet No 258, February 2001) and Finnish survey data persuade the Commission of the need to make non-auditory effects part of a preventive strategy, especially in the non-industrial sectors where most workers are employed today?

[7] COM(82) 646.

[8] Annex I. Indications for measuring noise, proposal for a directive, *OJ* C289 of 5 November 1982.

■ it gives recognition to worker's rights of consultation and participation on all the matters covered by the directive.

4. But the text also shows that the Council remains focused on unanimity, even though the legal basis allows it to be adopted by a qualified majority. The Council's compromises may water the directive down and make it harder to incorporate into national law because the legislator's intentions are not clear.

So, the Council has made the first-ever **linkage between an occupational exposure limit value and the use of personal protective equipment**. Both the 1986 directive (article 2.1) and the 1992 Commission proposal for a directive (article 2.2) stipulated that exposure levels are not to take into account any personal ear protector used. The new approach conflicts with the provisions of the framework directive (article 6) that collective protective measures - like compliance with exposure values - must be given priority over the use of individual protectors. The approach taken also shifts the employer's responsibility (article 5) onto the worker wearing the hearing protectors. The worker will not only suffer the consequences of but be liable for PPEs which are defective, improperly maintained, or not adapted to the work or the anatomical characteristics which determine perceived noise levels. The problem is that different models of individual hearing protectors (earmuffs or ear plugs) attenuate perceived noise levels differently. Directive 89/686/EEC, which lays down the specific design requirements for PPEs to protect against the harmful effects of noise (annex II point 3.5) provides that they must attenuate it to such an extent that the sound levels do not exceed the values laid down by Directive 86/188/EEC. The noise attenuation level must be labelled on the PPE. A series of standards specify the laboratory measuring procedures[9]. But the evidence is that the laboratory effectiveness of protectors depends on their being correctly worn, properly maintained and anatomically suited to the individual. There is also a marked difference between the attenuation efficiency of protectors when worn in a laboratory (almost no background noise, shorter wearing time than in the workplace) and in a work situation. It is also significant that the test is halted when the testee reports "any loss of attenuation". The literature[10] reports effectiveness variations of from 2.5 dB(A) to 30 dB(A). This being so, how valid is it for the Council to set an upper value of 87db(A) ***with protectors*** as opposed to the Commission's proposal of 90db(A) ***without protectors***. Is it a smokescreen to allow upper values higher than those set?

The reference to wearing individual hearing protectors must be dropped.

5. Questions also arise about why the Council has kept the **trigger level for access to health surveillance** at 85dB(A). The draft directive provides that employers must take remedial measures when identifiable hearing damage is found, so the Council is restricting access to health surveillance to those workers who have probably already suffered most damage. This does not seem to add up, and is probably about the Council wanting to limit the number of workers who have access to health surveillance instead of reducing the number of people suffering hearing damage.
Increasing the number of people qualifying for health surveillance would be a stronger signal to employers to take remedial measures. The Council must recognize the right to health surveillance from 80db(A).

6. The Council must give effect to **the requirements of information, consultation and participation of workers** in each individual directive under the framework directive. The reference to article 11 is good, but not enough. The evidence is that the framework directive requirements are often watered down when the individual directives are incorporated into national law. The current wording is too vague. The directive should expressly lay down workers' rights regarding risk assessment and the resulting implementing measures, including those for checking the efficiency of individual protectors and compliance with exposure limit values.

7. Sad to say, two Commission proposals have been dropped from the Council text :
■ One required Member States to take measures (e.g., putting data collection systems in place and making the data accessible) by which for employers and workers alike, for the purposes of conforming with Directive 89/655, to compare the noise emission levels of the different equipment placed on the market. Making such data available would enable employers to purchase less noisy equipment.
■ The other urged Member States to take into account what the Commission described as types of activity requiring "*particular vigilance*", where exposure values below those set might be provided. Such values are essential in some non-industrial sectors.

8. Finally, while the Council's revision of the Noise Directive to chime in with the framework directive can only be welcomed, it is also to be hoped that the European Parliament, which made no amendments in first reading, will come down firmly in favour of improving a draft directive on a "common" risk which affects tens of millions of workers. ■

Marc Sapir
msapir@etuc.org

[9] ISO 4869-2:1995, *Acoustics - Hearing Protectors - Part 2: Estimation of effective A-weighted sound pressure levels when hearing protectors are worn* (ISO 4869-2:1994).

[10] Alain Mayer and Eero Korhonen, "Assessment of Protection Efficiency and comfort of personal Protective Equipment in Real Conditions of Use", *in International Journal of Occupational Safety and Ergonomics*, Vol. 5, No 3, pp. 347-360, 1999.

Workers' exposure to vibrations : Council common position

Following the political agreement achieved under the French Presidency at the end of 2000, the Council of Ministers reached a common position in June on the proposal for a directive concerning the protection of workers from the risks of mechanical vibrations. The directive will be the first separate directive after the splitting in 1999 of the Commission's original proposal from 1993 covering all types of physical agents (mechanical vibrations, noise, optical radiation and electromagnetic fields and waves). The June 2001 Social Affairs Council also reached a political agreement on the proposal for a new Noise Directive (see article over).

Introduction

The new Directive on protection against vibrations will plug a large loophole in European health and safety legislation.

It is estimated that 1.7 - 3.6% of the European workforce is exposed to potentially harmful hand-transmitted vibration. A recent survey in Great Britain estimated that over 1,000,000 workers were exposed to vibration levels above the national action level of 2.8 m/s^2[1] . Estimates in the Netherlands suggest that 4 - 7% of the workforce is exposed to whole-body vibration. The 3rd European Survey on working conditions carried out by the Dublin Foundation (Merlie and Paoli, 2000) confirms that exposure to vibrations remains widespread in Europe.

Vibration - whether whole-body, or hand-arm - has many effects on humans including vascular, musculoskeletal, neurological effects. NIOSH[2] found strong evidence for a relationship between Hand-Arm Vibration (HAV) and Whole-Body Vibration (WBV) and relevant musculoskeletal disorders. The Eurostat study launched by the Commission to achieve comparability of data on recognized occupational diseases in Member States in 1995 (EODS)[3] indicates that diseases caused by mechanical vibration were among the 10 most frequent diseases in the EU.

The Vibration Directive was the focus of one of the most long drawn-out legislation adoption procedures ever, taking 8 years and still counting. This is because the debate was not just about vibration issues, but whether a joint Directive should be passed on the basic physical agents within the meaning of Article 16 of the Framework Directive.

The Vibration Directive is what emerged from the initial proposal for a general Directive on physical agents in 1993. That proposal would have wrapped all physical agents - noise, mechanical vibration, optical radiation, electromagnetic fields and waves - together in a single instrument. The Commission decided in 1999 to concentrate on mechanical vibration, where the state of scientific knowledge was considered sufficiently advanced and for which the link between exposure to vibration and some occupational diseases could be established. The European Council reached a unanimous common position on the Vibration Directive on 25 June 2001. The Directive is now with the European Parliament for its second reading.

General issues

There is no doubt that the Vibration Directive will significantly help improve working conditions in Europe. It is an entirely new directive that will for the first time get to grips with a particularly hazardous physical agent. But there are some points of concern that should be further addressed. The vexed issues centre on the Directive's basic provisions, namely the proposed limit values, risk assessment method, health surveillance, derogation and transitional periods.

Proposed values

The TUTB greatly welcomes the introduction of action and limit values in the Directive, which will contribute enormously to the prevention of vibration-induced diseases in Europe. At the same time, it will give impetus to manufacturers to produce lower emission machines and vehicles at lower cost. Even so, the proposed limit values of 5 m/s^2 for HAV and 1.15 m/s^2 for WBV and their corresponding action values of 2.5 m/s^2 and 0.6 m/s^2 are high. There is solid scientific evidence of dose-effect relationships for lower magnitudes of vibration of less than 3 m/s^2 for HAV and 0.5 m/s^2 for WBV.

Common position on a vibration directive

Hand-arm vibration
Action value : 2.5 m/s^2 - Limit value : 5 m/s^2
Whole-body vibration
Action value : 0.6 m/s^2 - Limit value : 1.15 m/s^2

[1] Keith T. Palmer, M. Griffin, H. Bendall, B. Pannett, D. Coggon, "Prevalence and pattern of occupational exposure to hand transmitted vibration in Great Britain: findings from a national survey", *Occup Environ Med*, 2000.

[2] *Musculoskeletal Disorders and workplace factors*, NIOSH, 1997.

[3] Antti Karjalainen and Simon Virtanen, *European Statistics on Occupational Diseases, Evaluation of the 1995 pilot data* (EODS), 1999.

■ **Limit values for Hand-Arm Vibration**

There is a statistically significant positive correlation between the prevalence of Raynaud's syndrome and the measured vibration magnitude. Wasserman (1998) reports that after 8 years of 8 hours exposure to 2.8 m/s^2, or 2 hours of 5.6 m/s^2, at least 10% of the exposed population may develop Hand-Arm Vibration Syndrome. Bovenzi *et al*, (1995) found a significant correlation for a HAV > 2.5 m/s^2 and 20 years exposure. A study by S.M. Mirbod, R. Inaba, H. Iwata, M. Jamali (Gifu University School of Medicine, Japan, 1998), suggests that 2.2 m/s^2 would be a permissible vibration exposure for an 8 hour working period.

Furthermore ISO 5349-1:2001 - the reference standard that the Directive proposes for exposure assessment - shows in Figure C.1. that with an exposure of 5 m/s^2 (i.e., the Directive's proposed limit value of 8 hours exposure), 10% of the population will develop vibration-induced white finger in **6 years** - in other words, by working with vibrating tools within the limit values set by the Directive.

Pelmear and Leong (2000) reviewed the literature and concluded that existing standards and guidelines provide inadequate protection for impact vibration. They recommended a more stringent level to lower the prevalence of Raynaud's phenomenon, namely, 1.8 m/s^2 for 8 hours or less, and under 5 m/s^2 for 1 hour's exposure. Bovenzi recommended tougher criteria for exposure than in the present ISO HAV standard. National regulations in Denmark set a limit value of 3 m/s^2 and a non-mandatory target for firms to reduce vibration exposure to 1m/s^2. In the amended proposal for the Directive on physical agents (1994), a threshold level for health risk alert and the need for preventive measures including training was set at 1m/s^2 for HAV exposure.

To conclude we believe that lowering the action value to 1m/s^2[4] and the limit value to 3m/s^2, in the proposal, will reduce the number of workers likely to contract HAV-related occupational diseases during their working life.

■ **Limit values for Whole-Body Vibration**

Epidemiological studies by Bongers *et al* (1990), Boshuizen, Bongers and Hulsdhof (1990), Bovenzi and Zanini (1992), Bozenzi and Betta (1994) found a significant association between exposure to WBV > 0,5 m/s^2 and Low Back Pain among groups of workers. Also Depuis and Zerlett (1987), Musch (1987), Schwarze (1999) found a significantly higher risk of lumbar problems in workers exposed to WBV. Ergonomic requirements suggest that tractors, heavy vehicles and construction machinery with frequencies most often between 1 and 5 Hz and operating for 8 hours a day, require a limit of oscillation acceleration of 0.3 - 0.45 m/s^2. These limits can be achieved technically by jointly engineering the suspension of the vehicles' axles and the driver's and passengers' seats (Kroemer and Grandjean,1997).

In many studies investigating the relationship between low back disorders and whole body vibration, a level of 0.5 m/s^2 is often cited (Hulshof, 1998).

The prevalence of low back disorders is also high among operators of rail vehicles with relatively low vertical but high lateral vibration. The highest levels of vertical vibration were found in off-road vehicles and forklifts (Johanning, 2000)[5].

Also in ISO 2631-1:1997 (the Directive's proposed benchmark standard for exposure assessment), Figure B.1 shows a health caution zone for 8 hours exposure between 0.45–0.8 m/s^2. This means that, for the proposed limit value of 1.15 m/s^2, **there are certain health risks** for workers exposed according to the Directive's suggested evaluation method. In a simplified model of the ISO figure on vibration evaluation used in the Danish regulations, the limit value is between 0.6–0.8 m/s^2.

The Commission's initial proposal on the general Directive for physical agents in 1994 and for WBV exposure set values considerably lower than the current proposal - specifically, an action value of 0.5 m/s^2 and a limit value of 0.7 m/s^2. Also it included a threshold level for health risk alert and the need for preventive measures at 0.25 m/s^2 for WBV exposure.

The European Parliament accepted these values in the first reading of that general proposal. In the forthcoming second reading, it is expected to put up amendments to the common position on a Vibration Directive recently adopted by the Council.

To conclude we believe that lowering the action value to 0.45 m/s^2 and the limit value to 0.6 m/s^2 in the proposal will reduce the numbers of workers likely to contract WBV-related occupational diseases during their working life.

Risk assessment and measurements

The Directive requires employers to perform a risk assessment on vibration exposure. Although relevant standards for concrete measurement are suggested, they are given a let-out to perform the risk assessment by "observation". Risk assessment is extremely

[4] Bear in mind that as the action value in most cases triggers health surveillance, it must be low enough to prevent the development of diseases.

[5] Lic. Rip Op de Beeck, *Research on work-related low back disorders*, European Agency for Safety and Health at Work, 2000.

important because it determines prevention measures and health surveillance of workers. It can only be considered reliable if appropriate measurement techniques are applied. The aim is to determine whether the action values - not to say the limit values - set in the Directive have been reached or exceeded. It is difficult or impossible to gain any meaningful measure of exposure to or the characteristics of vibration through observational methods[6]. Permitting observational evaluation undermines the whole concept of the limit values in the Directive. Limit values in the European Directives were always followed by reliable measurement methods.

The manufacturer's declared vibration emissions alone cannot be used to describe the actual vibration levels to which workers are subjected in practice. It is often not possible to establish exposure levels based on emission data[7]. These values are likely to underestimate the true exposures, since standardized operating conditions for measurement do not always represent the actual conditions in which the machine is used. Other aspects, including equipment maintenance, the workpiece and surface on which a tool is used can aggravate the exposure. Therefore, measured values of the vibration on the actual work environment and real tasks to be performed are required. Although measurements of vibration are considered complicated and expensive it must be borne in mind that advances in equipment are demand-driven. Vibration measurement equipment is now significantly lighter and cheaper than 10 years ago. So, the next generation of measurement equipment is expected to develop to meet the new market demands.

The option of observational evaluation must be dropped from the Directive, therefore. Should the observational approach be maintained, it should be allowed only for machinery with declared vibration emissions considerably below the Directive's action value. It should also be mandatory for such evaluations to be performed only by qualified OHS personnel. Moreover information from relevant databases[8] on ***measured*** vibration values for the specific equipment if available should be taken into account.

Health surveillance

The Directive requires appropriate health surveillance to be ensured when the outcomes of the risk assessment indicate a danger to workers' health. Whatever else, workers exposed to vibration exceeding the action value are entitled to "appropriate" health surveillance. This is a general wording which applies more to the kind of examinations, and does not categorically require periodic examinations. The amended proposal for a Directive on physical agents (1994) specified that workers exposed above the action values shall have the right to ***regular*** health surveillance aiming at early detection of health impairment. It is also not clear whether and in what circumstances workers exposed to vibration lower than or equal to the action limits are entitled to health surveillance. In Great Britain, the recommendation is that it would be prudent to conduct health surveillance on all regularly exposed workers[9].

Prevention measures (PPE)

Annex A, paragraph 5 "Individual protectors", provides that personal protective equipment (PPE) against hand-arm vibration can contribute to the programme of preventive measures. **It must be clear that PPEs can only make a limited contribution to prevention**. ISO 5349-1:2001, Annex E: "Preventive measures", states that anti-vibration gloves should not be expected to provide a sufficient means of protection from hand-transmitted vibration.

Derogations

For vibration exposures that can vary across the day, Article 10.2 provides a derogation from the obligation not to exceed limit values if the 40-hour average exposure does not exceed the limit value. As a result, workers can be exposed to very high vibrations over shorter periods. But for prevention purposes, the magnitude of vibration is more significant than the duration of exposure. Reducing the magnitude of vibration reduces exposure more effectively than reducing the duration. The difficulty of controlling the frequency and duration of exposure to vibration could also lead to abuse of this provision.

Transitional periods

This Directive sets significantly long transition periods for compliance with the limit values. Member States can make use of a maximum transitional period of 6 years from the implementation date (i.e., 3 years from the adoption of the Directive) for firms using older equipment. Employers can claim this transposition period if they bought and gave to workers equipment which exceeds the limit value before **3 years after the implementation** of the Directive. If such a transitional period has to stay in, it should at least apply to employers that gave equipment to workers before the adoption of the Directive. For agriculture and forestry, this transition period can be extended to **9 years**. That said, even longer transition periods are preferable to exempting certain high-vibration sectors. ■

Theoni Koukoulaki, TUTB Researcher
tkoukoul@etuc.org

[6] P. Buckle and J. Devereaux, *Research on work Neck and Upper Limb Musculoskeletal Disorders*, European Agency for Health and Safety at work, 1999.

[7] *Ermittlung des Normungsbedarfs zur festlegung von kennwerten fur Vibrationene*, Kommission Arbeitsschutz and Normung (KAN), Report 3, 1996.

[8] Examples of such Databases exist in KAN (St. Augustin, Germany) and the National Institute of working Life (Umea, Sweden).

[9] *Vibration solutions: practical ways to reduce the risk of hand-arm vibration industry*, Health and Safety Executive, 1997.

Asbestos ban

Mankind has been using asbestos for thousands of years. We know that from neolithic pottery made in Finland more than 2,000 years before the Christian era. The special properties of asbestos - particularly its fire-resistance - were written about by the Ancient Greeks. By contrast, it has a relatively short industrial history - barely 150 years since the asbestos deposits in the Urals and at Quebec were first mined in the latter half of the 19th century. But the catastrophic health effects of asbestos have been known for nearly 100 years. British and French factory inspectors reported lung disease and very high mortality rates among groups of men and women workers exposed to asbestos. While it is impossible to put a precise figure on the number of victims claimed by asbestos in the 20th century, the death toll from cancers and pulmonary fibrosis runs at least into the hundreds of thousands.

In many industrial countries today, total asbestos-related deaths have outstripped the number of fatal workplace accidents. There are various reasons why prevention policies have signally failed to address this, chief among them the relentless drive for profits and some multinationals' ferocious opposition to effective prevention.

Asbestos stands as a tragic textbook example of the way in which countless other chemical substances kill vast numbers of people each year. That is what prompted us to publish this special report.

This entire Special Report was written by TUTB Researcher **Laurent Vogel**, lvogel@etuc.org

Asbestos disputes in the WTO : battle won – but not the war

The WTO dispute settlement system

To get a proper handle on this dispute, a few words must be said about the dispute settlement system established when the WTO was set up in 1995.

Basically, WTO rules systematize and are progressively extending the different GATT agreements negotiated since 1947. But the WTO is far more instrumental for multinational firms and dominant countries in a globalizing economy. The way the WTO works is designed to concentrate powers to regulate trade in its hands. That reflects the realities of a world economy in which policy-making powers are increasingly concentrated and the divides between classes, genders and nations are widening apace. The proponents of sound governance argue that it would be illogical to preserve the framework of inter-state relations which is the legacy of decolonization, and the East-West divide, which left more sovereignty with States.

One area of new ground broken by the WTO is that new rounds of talks on extending the scope of liberalized trade can in future be started up by a straight majority vote, whereas GATT required the unanimous agreement of all states. Unlike GATT, WTO membership involves an "all-in commitment": states can no longer pick and choose which agreements to join[1]. They must sign up to all the multilateral agreements negotiated in the Uruguay Round. This is highly restrictive for the dominated countries, which had always tried to keep some elbow room to make free-standing choices of which rules to observe in certain areas of a globalized economy. They are now denied this freedom: either they join the WTO and make sure their domestic rules comply with all the agreements concluded, or they stay outside the WTO and risk acquiring pariah status in the world economy. The case made by WTO apologists that it would constitute a truly multilateral framework for developing common rules is belied in practice. It has been clear from the different ministerial conferences that the entire agenda was set at informal meetings between the dominant countries (United States, European Union, Canada, Japan).

The dispute settlement system is a major innovation over the GATT rules. It is based on three bodies: the Dispute Settlement Body (DSB), panels and the Appellate Body.

- The DSB consists of representatives of all the Member States. They are usually diplomats.
- Panels are ad hoc groups of from three to five experts who may be appointed by agreement between the parties to the dispute from a list drawn up by the WTO Secretariat. Failing agreement, the WTO's Director-General will appoint the experts himself.
- The Appellate Body consists of seven experts appointed by the DSB. The word "expert" requires some clarification - it means specialists in international trade.

This set-up limits the procedures in two ways. First, it is not an International Court of Justice compelled to respect fundamental guarantees on human rights as well as procedural rules. Second, they are not experts in the substantive matters that are dealt with by the national measures being complained about. That reflects the WTO's agenda of putting world trade rules above all other considerations. Whether it be social/employment rights, environmental protection or public health, the experts in the WTO procedures are generally unqualified to grasp the real issues at stake in disputes. Their findings are essentially based on the GATT and WTO texts and precedents drawn from trade disputes. Also, in practice the WTO Secretariat has also been found to play a major role in the conduct of the procedures.

The main stages of all procedures are briefly as follows. When a state complains about the rules or practices of another state, a consultation procedure is opened. If they fail to reach agreement within 60 days, the DSB appoints a panel, which has six months to draw up a report after hearing evidence from the parties in dispute and any interested third countries. This report is sent to the members of the DSB, which can adopt it or reject it. It can only be rejected by unanimous vote of the DSB. That has never yet happened. Either side can appeal a panel's ruling. This procedure has to be completed within 90 days. The Appellate Body deals with points of law only. The Appellate Body's report may be adopted by the DSB or rejected by unanimous vote of its members. If the complaint is upheld, the "unsuccessful" state must state what action it will take to comply within a reasonable period of time. If it fails to act, the parties will have to agree on economic compensation. If they cannot, the DSB may authorise retaliatory measures.

The procedure is not cheap, and it is not unknown for multinationals to share in the costs of expertise and contribute to the costs of the procedure. Hence the disproportionate number of complaints made by developed countries compared to those initiated by dominated countries. A WTO overview in March 2001 showed that of 222 complaints, 150 were

[1] With exceptions, however : the multilateral agreements annexed to the agreement setting up the WTO bind only the states that sign up to them.

made by developed countries (overwhelmingly the United States), 61 by "developing countries" and 11 "hybrid" (joint complaints by developed and "developing" countries). The trade sanctions machinery is totally unsuited to dominated countries which have little interest in cutting off their own imports, so in practice, dominated countries tend to forego their retaliatory measures option.

Pace the claims of WTO advocates, its dispute settlement system has not done away with unilateral retaliation by dominant countries. Where a complaint to the WTO has little legal substance, political pressure and unilateral retaliation remain the rule. So, in the long string of disputes between multinational pharmaceutical firms and countries in Asia, Africa and Latin America who are trying to tackle AIDS by encouraging local production of affordable drugs, the dominant countries have used a mix of strongarm tactics. In some cases, they have opted for political pressure (notably against Thailand and South Africa). In others, multinational firms have gone to the national courts (South Africa). In yet others, complaints have been made to the WTO Dispute Settlement Body: by the European Union against India[2], and, more recently, by the United States against Brazil[3].

Stage One : the panel procedure
How to sideline a sensitive political issue

In December 1996, France passed regulations (by decree) placing a blanket ban on the manufacture, processing, sale, import, placing on the market or assignment of asbestos and asbestos-containing products. Only products for which no substitute existed were granted a temporary exemption.

Canada took its dispute with France to the WTO in 1998. A three-person panel was appointed on 25 November 1998. It published its report on 18 September 2000. A line by line analysis of the panel's reasoning is outside the scope of this report.

Discussions in the Appellate Body focused on two groups of issues.

One was to assess the hazards of asbestos and whether the ban was imposed out of legitimate public health concerns. The European Community, backed by the United States, made out a particularly persuasive case for this. Even with the bias introduced by the panel in the official experts appointed and the discussion of these issues, the report clearly recognized the carcinogenicity of asbestos (see especially paragraphs 8.188 and 8.194 of the report).

The other was to identify which WTO agreements might apply to an asbestos ban and how far the ban met the conditions set in those agreements.

The choice of reference agreement plays a key role in WTO procedures, because the grounds on which a national measure detrimental to free trade might be justified are worded differently in the different agreements. The test used to determine whether a national measure is justified varies and the onus of proof is not necessarily governed by the same rules.

In Canada and the United States' opinions, the reference text is the TBT Agreement. Both countries interpret the French decree banning asbestos as a technical regulation. The European Communities take the opposite view: the concept of a technical regulation as expressed by the TBT Agreement "does not cover general prohibitions on the use of a product for reasons to do with the protection of human health". The TBT, it was argued, concerned only technical regulations and standards relating to the detailed characteristics of products and their methods of production. In our view, the best way for the European Union to get such an interpretation would be to get a revision of the TBT Agreement so as to clarify its content.

Compatible with the TBT Agreement ?

This was the first dispute under the TBT Agreement that the WTO Dispute Settlement Body had to deal with. So whatever decision it made was bound to lay down principles with a much more far-reaching impact than just on the immediate issue of Canada's asbestos exports to France.

The French decree had to clear a series of hurdles under the TBT Agreement :

- Article 2.1 prohibits any discrimination between products imported from a WTO Member State and similar products of national origin or originating in another State.
- Article 2.2 stipulates that technical regulations must not create unnecessary obstacles to international trade. It specifies that to this end "technical regulations shall not be more trade-restrictive than necessary to fulfil a legitimate objective, taking account of the risks non-fulfilment would create". Protection of human is such a legitimate objective, but the concluding sentence of the provision seems to make the decision of whether an objective is legitimate depend on a "risk assessment", taking into account available scientific

[2] Case WT/ DS79/1. The panel report adopted by the DSB on 2 September 1998 found in favour of the European Union's complaint against Indian legislation on patents for pharmaceutical products and agricultural chemicals.

[3] Case WT/ DS199/1. The United States requested the establishment of a panel on 8 January 2001. Following a campaign of protests by a large number of organizations, the United States government renounced its WTO procedure on 26 June 2001.

and technical information. That seems not to leave much scope for applying a precautionary principle.

- Article 2.4 adds a particularly tough condition: national technical regulations must comply with existing international standards, or such parts of them as are effective or appropriate. This rule even extends to standards which are not yet on the books, but whose "completion is imminent".
- Article 2.8 requires States to specify technical regulations based on product requirements in terms of performance rather than design or descriptive characteristics.

The European Community argued that the TBT Agreement did not apply in the case in hand, and that the French decree had to be compatibility-checked against the old GATT 1994 rules. Three articles were relevant :

- Article III.4 prohibited any discrimination between imported products and like products of national origin.
- Article XI.1 prohibited obstacles to imports and exports other than customs duties, taxes or other charges.
- Article XX admits a number of justifiable exceptions to these rules. Protection of public health is one of them. However, the burden of proof lies on the country invoking the exception.

The panel's responses

The panel report addressed the legal issues as follows. France's asbestos ban was not a technical regulation within the meaning of the TBT Agreement[4], and so it had to be checked for compliance with the previous GATT 1994 rules. The measure had all the hallmarks of an obstacle to trade, and infringed article III:4 of GATT 1994. The panel reached this conclusion by arguing that asbestos and substitute products were like products. But the measure did meet the requirements of article XX of GATT 1994 as falling within the category of policies intended to protect human health and life. It was for the European Union, therefore, to prove that the measure was "necessary". The panel found that the EU had made out a prima facie case, confirmed by the experts consulted during the procedure, and that Canada had failed to overturn the presumption that there was no reasonable alternative to the asbestos ban.

Ultimately, the panel brushed aside any discussion of the precise scope of the TBT Agreement. It upheld the measure banning asbestos, but put the burden of proof on the State adopting public health measures. It confirmed that the WTO's criteria for interpretation were trade-focused. In looking to establish that asbestos and substitute products were like products, it saw fit to disregard the carcinogenicity issue. Its rationale was that a product is a like product if it is comparable to another in terms of characteristics (quality, end-use, etc.), so dismissing any reference to the dangerous nature of the product from such a debate.

So, the panel report's conclusions were anything but clear-cut. The WTO's unwillingness to examine the scope of the TBT Agreement in such a sensitive case can only be seen as dictated by political considerations.

Health and trade : differences between Community rules and the WTO regime

A comparison of the WTO regime and existing Community rules reveals some key differences.

1. The Community rules are based on a corpus of harmonized market rules, which is clearly outside the WTO's purview. Community law includes a corpus of Directives ensuring a relatively high level of health protection. Notwithstanding their undoubted shortcomings and failings, these Directives do at least provide a benchmark which is completely lacking at international level.

2. The conditions governing each State's ability to issue national rules to protect a higher interest than that of property interests are far more favourable in Community law than in the TBT Agreement. This is best exemplified by comparing the current article 30 of the Community Treaty (former article 38) with article 2 of the TBT Agreement. The Community system leaves significantly more sovereignty in the hands of States, even with the harmonization of market rules. That, indeed, is why the Court of Justice of the European Communities has repeatedly been able to curb the free trade pressures applied by the Commission on Member States seeking to protect public health or the environment by enacting stricter rules than the Community ones (e.g., Swedish regulations on the market in chemical substances).

3. Many European technical standards are adopted under a standardization mandate designed to ensure compliance with essential health or safety requirements. This is clearly not so with standards edicted by international organizations like the ISO.

[4] More specifically, the panel distinguished within the decree between the part banning asbestos and the part making exceptions to the ban. The TBT Agreement, it said, applied only to the second part. But, as Canada was not taking issue with these exceptions, the TBT Agreement was not in issue.

Stage two : appeal
From an unclear decision to no decision at all !

None of the parties was completely happy with the panel's position.

On 23 October 2000, Canada gave notice of appeal, followed on 21 November 2000 by the European Community. The Appellate Body published its report on 12 March 2001. That report reversed a series of views taken by the panel as a trier of the facts.

It even goes further than the panel in some respects, such as in its acceptance that asbestos' carcinogenicity prevents it from being a "like product" to substitute products.

Some improvements

That part of the report deals with similarities between asbestos fibres and substitute products is a clear step forward from the panel's analysis. Its sheer length (70 paragraphs) makes it a linchpin of the Appellate Body's discussion. But even its analysis is not entirely clear-cut, however, inasmuch as it keeps the focus of debate resolutely trade-based. For the Appellate Body, evidence relating to the public health risks associated with a product's characteristics is not a separate criterion (see paragraph 113 of the report). They are one of other relevant elements involved either in analysing the physical properties of a product, or analysing consumer tastes and habits. The downside of this view is to put the discussion firmly back in the sphere of analysis of a specific market, more particularly, the analysis of consumer demand. Indeed, this was not the unanimous view of the Appellate Body itself. One of the members of the appeal section took pains to spell out his views which, on some points, diverged from a purely trade-based approach to the issue (see paragraphs 149 to 154).

The analysis of the fundamentals of a public health policy also goes further than the panel report. The Appellate Body overtly acknowledges that in adopting measures to protect human life or health, a State "may also rely, in good faith, on scientific sources which, at that time, may represent a divergent, but qualified and respected, opinion. A Member is not obliged, in setting health policy, automatically to follow what, at a given time, may constitute a majority scientific opinion" (paragraph 178 of the report). Important as this finding is, it is at present limited to decisions taken under article XX b) of the GATT 1994.

A non-decision on the merits: TBT Agreement left uninterpreted

This is precisely where the Appellate Body leaves a big question mark hanging over the future. It upholds Canada's argument that the Technical Barriers to Trade Agreement applies to a measure like the asbestos ban. The Appellate Body admits that the TBT Agreement imposes obligations on the States that seem to be different from, and additional to, the GATT obligations on the basis of which Canada's complaint was dismissed. But it did not consider itself competent to examine whether France's asbestos ban was compatible with the Technical Barriers to Trade Agreement rules.

This looks for all the world like a positive decision... not to take a decision. The Appellate Body makes no findings about whether the asbestos ban complies with the rules of the TBT Agreement or not. It simply finds that: "the TBT Agreement imposes obligations on Members that seem to be different from, and additional to, the obligations imposed on Members under the GATT1994" (paragraph 80 of the report). As the panel decided not to examine Canada's claims under the TBT Agreement, the Appellate Body decided that it did not have an adequate basis for doing so. In conclusion, the vagaries of the WTO's own procedure prevent it from taking a clear decision on whether an asbestos ban is compatible with the trade rules. As an issue under the TBT Agreement, it still remains an open question.

NGOs shut out

Another vexed issue in the appeal procedure was the transparency of the WTO dispute settlement system. The Appellate Body seemed willing to open the discussions up to non-governmental organizations. In November 2000, it even published a call under which all concerned organizations could have filed written third party submissions. This prompted a storm of protests from States who wanted to keep it as much under wraps as possible. Sadly, all the 17 organizations who wanted to intervene as third parties found themselves shut out of the debate on various pretexts and without exception. So, the European Trade Union Confederation, the International Confederation of Free Trade Unions (ICFTU) and various environmental protection groups were prevented from putting their views.

The adoption of this report is clearly a battle won for workers' rights and public health. It upholds the French decision on public health grounds. But the

The TBT Agreement applies – but the issues are not for today

The TUTB website has a special page on this case. It is regularly updated to keep you abreast of late-breaking developments : www.etuc.org/tutb/uk/asbestos.html

WTO's line of argument is fraught with peril - it sets a precedent by laying claim to WTO jurisdiction over public health and limits state sovereignty in this area based on what are essentially trade promotion rules. It effectively reserves judgement on the TBT Agreement, while considering that it should apply to the case in hand.

Looking beyond the legal arguments, the political scope of this case should be not underestimated. For one thing, the attempt to overthrow a ban on a known carcinogen which kills hundreds of thousands of people a year across the world earned the WTO widespread public opprobrium. The WTO was keen to avoid a repeat of the successful demonstrations seen at Seattle, Davos and Porto Alegre. Also, it retains the ability to shackle the sovereignty of states whose health or environmental protection decisions it considers to be technical barriers to trade.

The third parties : Brazil, Zimbabwe and the USA

Three countries intervened as third parties. Brazil and Zimbabwe closed ranks with Canada. The EU had the backing of the United States.

Doom and gloom helps multinationals

Canada supplied the lion's share of arguments against the asbestos ban. Brazil was keen to keep its submissions under wraps, mainly because of vocal Brazilian trade union support for a ban, and divisions within the government. The federal executive wanted to keep its claims about the safety of asbestos out of the public spotlight, as Brazilian deaths from asbestos exposure run into the thousands. Brazilian President F. H. Cardoso's PSDB party (Party of Brazilian Social Democracy) has links to the pro-asbestos lobby through the governing authorities of the State of Goais. Hence President Cardoso's standard-bearing for the asbestos multinationals against the misgivings of his own Environment Minister, José Sarney. Interestingly, SAMA (the Minaçu asbestos mine operator, part of the Eternit Group) claims that the company "joined Canada in WTO proceedings against France's unilateral decision"[5]. This claim may not be strictly accurate in law because only States can be parties to WTO disputes, but it certainly reflects the political realities.

Brazil and Zimbabwe's submissions added nothing new to Canada's case. They simply added a touch of fake doom and gloom to the picture. The asbestos ban could be bad for developing countries, claimed the Cardoso and Mugabe governments. In truth, the asbestos market is mostly controlled by multinationals, the biggest of which is the Etex-Eternit Group. Asbestos profits do not benefit the people of the countries concerned, but go straight into the pockets of the companies' mainly European shareholders. But the countries do have to foot the health damage and environmental clean-up costs. Brazil's asbestos production market has long been dominated by the Saint-Gobain and Eternit Groups. Most of Zimbabwe's output was controlled by the UK multinational Turner & Newall Ltd. In March 1996, it sold its asbestos mines to a holding company named ARL (African Resources Ltd), which is based in the British Virgin Islands and is run by Mr Matumwa Mawere, a close business associate of President Mugabe[6]. ARL is now also the main investor in asbestos cement firms. Mr Mawere's rocketing good fortune is being paid for by the people of Zimbabwe - ARL's losses have been picked up by the state budget. In South Africa, asbestos was for decades mainly produced by European multinationals (Cape plc, Everite-Eternit, T&N Ltd). Once it stopped being a paying proposition, these same multinationals used every means to avoid compensation payouts to thousands of asbestos victims and refused to foot the huge bill for cleaning up their old production sites. Just cleaning up the North Cape mines alone will leave South Africa with not much change from 20 million dollars.

Not entirely selfless support

In the other camp, the United States placed a big "but" on the EU's line of argument. They agreed that the asbestos ban was legitimate, but that it was a technical regulation within the meaning of the WTO Technical Barriers to Trade Agreement (TBT Agreement). This qualification will turn out to hold the key to the potential impact of the WTO agreements on workplace health.

The United States' backing was not unblemished by political and commercial ulterior motives. The high cost of court-awarded compensation to victims of asbestos-related diseases has knocked the bottom out of the asbestos market in the United States. Since January 2000, no fewer than eight firms have applied for Chapter 11 bankruptcy protection to meet the costs of awards to asbestos victims. The most recent is specialized building materials manufacturer the USG Group, which puts the cost of lawsuits at $275 million in 2001[7].

[5] See SAMA document, "Aos 60 anos tendo que provar segurança do amianto", August 1999, *Brasil Mineral* No 175 (www.signeuseditora.com.br/Bm-175/BMsama.htm).

[6] See *The New Scramble for Africa*, http://www.zimtoday.com/outcomes/corruption21.html.

[7] J. Sindrich, *USG files for bankruptcy, blames asbestos claims*, Reuters, 13 July 2001.

According to a report published in June 2001, US insurance companies have already paid out $41 billion to asbestos victims. The total number of lawsuits could rise to a million in the next few years at a cost of around $200 billion[8].

The strategy of controlled asbestos use has also proved a failure in the United States. The OSHA (federal health and safety agency) admits that the controlled use regulations are being ignored by very many firms. But the United States pressed hard for the recognition of WTO jurisdiction in occupational health matters. The United States was hoping that conceding the case for the asbestos ban would also gain recognition for the TBT Agreement principles, which would enable them to throw open to question European rules on work equipment rules (Machinery Directive and technical standards framed by CEN) and the market for chemical substances and compounds. Hence its equivocal stance of not wanting to oppose the French asbestos ban while avoiding "opening up a loophole of potentially huge dimensions in the TBT Agreement" (point 4.68 of the panel report). The United States elaborated on its view: "the EC argument would mean that a regulation on the safety of infant toys that excluded any parts below a certain size (to prevent choking) would not be a "technical regulation" (...). The provisions of the TBT Agreement would then be rendered a nullity. Such a reading of the TBT Agreement is impermissible as a matter of treaty interpretation, and undesirable as a matter of trade policy". While the United States example is probably not well-chosen, it does make the political issue clear. The asbestos case was supposed to give a strong statement that world trade rules come before higher interests like health, the environment or safety. But getting that result meant creating an accommodating political context by justifying the French asbestos ban as an exception... Not all health or environmental protection measures concern substances which have already killed hundreds of thousands of people and are undeniably carcinogenic. The United States could have reaped the benefits of an ostensibly sympathetic WTO decision and then mount other challenges, for instance on the grounds of the Machinery Directive and European standards being incompatible with international standards.

The EU's policy inconsistencies

The European Union went to bat for the French law banning asbestos. Its legal and scientific arguments were soundly presented and definitely had a positive impact on the outcome of the action. Its political defence, however, was utterly feeble. The European Commission completely failed to address the basic issue of exactly where the WTO's powers stopped and how much sovereign power it left States to protect health or the environment by measures which constitute barriers to trade. There are countless numbers of these, including such things as the banning of substances or equipment, restrictions on placing certain goods on the market, or making it subject to various obligations to inform consumers, perform impact assessments, or prior authorization requirements.

The WTO's dispute settlement system essentially poses two orders of problem.

- There is a clear need for a conflict rule which distinguishes a hierarchy of protected interests. The private property interests which depend on the smooth running of world trade should come second to non-property-based public interests like protecting life and health and ensuring sustainable development for our world. That means the WTO agreements giving far more effective recognition to states' absolute liberty to take measures which restrict trade in the higher public interest (health, environment, etc.).
- There are transparency issues around the procedures followed. The dispute settlement system allows trade specialists meeting behind closed doors to pass judgement on the validity of rules framed within the political complexities of a particular system. This smacks of anti-democratic practices. Laws voted through after what may have been years of debate could be thrown into question by private business lobbies via a complaisant State taking legal action in the name of its trade interests. It is an open secret, for example, that America's food industry lobby is against many food safety regulations. It is particularly hostile to a 1986 Californian regulation known as "Proposition 65" which requires consumers to be clearly warned about chemicals known to cause cancer or reproductive toxicity. Producers who place on the market goods containing a listed chemical must prove that it poses "no significant risk". The European Union believes that this duty to inform consumers creates a barrier to trade, a position actively supported by Grocery Manufacturers of America, the main food industry lobby in the USA. Were this dispute to be referred to the WTO, it would put the trade organization in a position to pass judgement on the validity of legislation approved by the people of California in a referendum passed by a two thirds majority vote[9].

There is a basic conflict between the EU's commitment to maintaining provisions which guarantee

[8] See *British Asbestos Newsletter*, No 43, summer 2001.

[9] On this case and other examples of the threat that the WTO poses to public health, see P. Goldman and J.M. Wagner, Trading Away Public Health: WTO Obstacles to Effective Toxics Controls, *Journal of Public Health Policy*, Vol. 21, No 3, pp. 260-267.

public health within its own territory and its fairly uncritical support of the WTO dispute settlement system.

That conflict focuses on the agreements under which trade disputes are adjudicated, and the procedures set up. This was brought dramatically to light in the bovine growth hormone affair[10], when the finding went against the European Union under agreements that it had negotiated, in a procedure which it defends and is quick to employ against other states.

Looking beyond the asbestos issue, therefore, the full set of WTO agreements needs looking at to see how far they throw into question the *acquis communautaire* (established body of Community laws and regulations) on occupational health, public health and the environment. The WTO agreements are designed to regulate world trade. They deal with such varied areas as intellectual property (TRIPS agreement), phytosanitary (plant health) rules and technical barriers to trade. So far, public health issues have only been addressed in cases dealing with intellectual property rights and plant health protection measures.

This is no place for an analysis of the substantive differences between these agreements. What they share is an approach which puts commercial interests first and through which the WTO, via trade disputes, is tending to claim a sort of catch-all jurisdiction. The new round of negotiations likely to be launched at the WTO Ministerial Meeting at Doha, in Qatar, could amplify that trend. Arguably, the WTO must be strictly reined in to its trade regulation agency role. Provided national measures are not disguised means of discrimination, therefore, the WTO should have no authority to pronounce on their legitimacy (e.g., on compliance with the proportionality principle, or the policy decision/risk assessment linkages). It would be risky in this respect to equate the WTO with a regional organization like the European Union. There are fundamental differences between the process of European integration and the WTO. The distinguishing features of the WTO include :

- it is a specialized organization dealing with trade issues;
- it is a world organization of countries with nothing like the same degree of political, economic and social homogeneity as the EU countries;
- it is an organization which is not concerned to harmonize national rules and so lacks a common reference framework against which to discuss the legitimacy of national rules.

Does the WTO safeguard the precautionary principle ?

The Commission has always shied away from carrying out an impact assessment of the WTO agreements on Community law. At every stage of negotiations, it pressed for a sufficiently vague and general negotiating brief not to have to lay down a clear course of action. Once the agreements were concluded, it contented itself with an overall assessment of the expected benefits of free trade. As guardian of the Treaties, it behoves the Commission to consider whether the agreements it has signed are compatible with many provisions of the Treaty and secondary legislation.

In its preparations for the "millennium round", the Commission made mumbling noises about some points of the agreements it regarded as not up to scratch. Its policy on the TBT Agreement was mainly to strengthen the status of the international standards (arguably a dangerous strategy) and clarify existing definitions and provisions. It thought, in particular, that "*health, consumer safety, and environmental issues, already covered in the existing Agreement, need to be strengthened in a manner that ensures the right balance between prompt, proportional action, where justified, and the avoidance of unjustified precaution*"[11]. This hardly committed it to much. Only in the field of food safety did the Commission, probably still stinging under Europe's defeat in the hormones in meat affair, propose clarification along the lines of recognition of the precautionary principle.

The failure of the Seattle Summit propelled the Prodi Commission into a blind headlong rush. It cast aside its own - albeit modest - reservations and in a document on the precautionary principle went as far as to say that "*each Member of the WTO has the independent right to determine the level of environmental or health protection they consider appropriate. Consequently a member may apply measures, including measures based on the precautionary principle, which lead to a higher level of protection than that provided for in the relevant international standards or recommendations*"[12]. It would certainly be nice if this were so, but the Commission more than anyone should know that the reality of the WTO is not that simple.

It would be a risky business to assume that the Appellate Body's findings in the asbestos case were enough to safeguard public health interests. As mentioned elsewhere in this special report, they just put the debates off to another day. No firm decision was taken on the central issue of the scope of the TBT

10 See Appellate Body Report of 16 January 1998 (Case DS 26).

11 *Communication from the Commission to the Council and the European Parliament - The EU approach to the WTO Millennium Round*, Doc. COM (1999) 331 final, Brussels, 8 July 1999, p. 17.

12 *Communication from the Commission on the precautionary principle*, Doc. COM (2000) 1 final, Brussels, 2 February 2000, p. 11.

Agreement. Above all, there is nothing to suggest that the WTO will take a similar line in cases of bans on other goods. After all, asbestos has been a known carcinogen for decades, and has claimed hundreds of thousands of lives.

The EU's confused relations with the WTO raise a more fundamental issue. The EU's approach to globalization purports both to preserve a measure of sovereignty and force dominated countries to accept the ground rules of dominant countries and their multinational firms. The intellectual property agreements are the most telling example of this.

Trade v health : pharmaceutical firms v AIDS sufferers

It is outrageous that Canada should use free trade rules against public health in the asbestos dispute. It puts it in direct line with a tradition stretching back to the shameful opium wars in the 19th century. But the European Union has had no qualms about another affair which essentially centres around the same issue - its own (successful) WTO complaint against India over pharmaceutical patents[13]. Compelling issues are at stake in this case. It is no secret that some multinationals have secured themselves a nice little earner by patenting medicines used in the fight against AIDS. Prohibitive pricing denies treatment to most people living with AIDS. The European Union claimed that the Indian regulations, aiming to shelter the development of a home-grown pharmaceutical industry, harmed its own trade interests. One decisive factor in this affair was the problems encountered by the Glaxo-Wellcome pharmaceutical group in patenting and securing a marketing monopoly for valaciclovir, a drug used especially against certain AIDS-related opportunistic infections. Beyond this immediate issue also lay the danger for the competitiveness of European capital to see its positions weakened across the entire pharmaceutical product and agricultural chemicals market. It is no secret that the catastrophic AIDS epidemic has prompted some Third World countries to try and develop a home pharmaceutical production industry to deliver more access to treatments to local communities. The European Union was quick enough to put the commercial profit of EU business before people's lives in this case. The fact is that if the pharmaceutical industry keeps its monopoly on marketing, most people living with AIDS will probably never get access to effective treatment.

The asbestos case should not give rise to bandwagon solidarities. If protection of human life is to take precedence over market rules, this principle must apply equally to all humankind, including when it goes against the economic interests of European firms. ■

Through the looking glass...

In a bizarre reversal, another case referred to the WTO found the European Union attacking Canadian pharmaceuticals legislation[14]. Canada was seeking to preserve some limited exceptions to the exclusive rights conferred by a patent in order to safeguard its own public health and social welfare policy, relying in particular on World Health Organization support for the use of generic drugs. The European Union was pushing a strictly free-market interpretation favourable to pharmaceutical firms.

The case raised key issues, hence the long list of third party countries making submissions. Significantly, all the third party "developing" and Eastern European countries (Brazil, Colombia, Cuba, India, Poland and Thailand) plus Israel lined up behind Canada. Switzerland and the United States backed the European Union's position. Japan occupied the middle ground, supporting some Canadian arguments and opposing others. Australia focused mainly on mapping out principles which broadly upheld the Canadian legislation.

Poland put its finger on the economic and social issues at stake, arguing that "generic drugs (are) several times less expensive than patented ones. A replacement of such drugs by patented ones would lead to either the lowering of a proper level of public health protection or to reallocation of funds within the budget at the cost of other equally justified objectives", supporting its argument by referring to a European Parliament Resolution of 16 April 1996 in favour of generic drugs.

The Panel Report called into question part of the Canadian legislation, but without accepting all points of the EU's line of argument. The dispute is not fully settled, because Canada and the European Union were unable to agree on the measures to be taken.

[13] The Indian dispute (DS79/1) was based on the rules of the WTO Agreement on Trade Related Aspects of Intellectual Property Rights (often referred to as the TRIPS Agreement). The European Union attacked the alleged absence in India of patent protection for pharmaceutical and agricultural chemical products, and the absence of formal systems that permit the filing of patent applications of and provide exclusive marketing rights for such products. The WTO panel ruled in the European Union's favour on the system of patent protection and the guarantee of exclusive marketing rights. The DSB adopted the panel's report at its meeting of 2 September 1998.

[14] Case DS 114. The Panel Report was submitted on 17 March 2000.

Asbestos kills in Canada, too

All the propaganda about the boons of controlled asbestos use has not stopped working men and women in Quebec and other Canadian provinces falling victim to the asbestos industry.

A recent survey by the Montreal public health network *Direction de la Santé Publique de Montréal-Centre* contains interesting category-specific data on new cases of asbestos-related occupational diseases in Quebec between 1988 and 1997[1]. It deals only with cases recognized by the *Commission de la santé et de la sécurité du travail du Québec* (CSST - Quebec Workmen's Compensation Commission).

Over the survey period, 691 workers were recognized as having an asbestos-related disease. Most of these (34.7%) were mineworkers. Also concerned are work involving the maintenance and repair of asbestos-containing materials and structures (25.2%), building trades (16.6%), asbestos processing (13.5%) and other sectors (4.9%).

Overall, there was a clear rise in the number of cases of asbestosis and mesothelioma over the period, while recognized cases of lung cancer remained stable. A large number of claims were made only after the victim's death (45.5% of the 187 mesothelioma cases, 65.6% of the 207 lung cancer cases, 22.2% of the 373 asbestosis cases).

The study data points to significant under-recognition of asbestos-related occupational diseases. CSST-recognized mesotheliomas account for only around 33% of cases registered in the *Fichier des Tumeurs du Québec* (Quebec Tumor Registry) - well below the tally in the USA (88%). The ratio of recognized cases of mesothelioma to lung cancer raises some questions. Only 38% of recognized lung cancer cases are from sectors other than mining compared to 82% of mesothelioma cases.

There is also quite a high incidence of short-exposure-related mesotheliomas in the processing industry (37% of exposures from 1 to 9 years).

Elsewhere, in an article published by the daily *Globe and Mail* on 18 July 2001, the President of the Canadian Autoworkers Union (CAWU), Buzz Hargrove, reported the case of the Holmes Foundry, Insulation and Caposite plant in Sarnia, Ontario, where 130 workers were recognized as having asbestos-related occupational diseases, including mesothelioma, lung cancer, gastrointestinal cancer and chronic lung diseases. Dozens of them have since died. He also reports the case of a fourteen year-old boy who died of mesothelioma probably caused by inhaling the asbestos fibres on work clothing worn by his father, who also worked at Holmes. The title of the union leader's article says it all: *Just say no to asbestos.*

[1] S. Provencher & L. De Guire, *Etude des nouveaux cas de maladies professionnelles pulmonaires reliées à l'exposition à l'amiante au Québec de 1988 à 1997*, Montréal, May 2001.

Asbestos – not wanted in the world

Australia

Strong action by the seamen's union won the day when the Maritime Union of Australia (MUA) called on dockers in December 2000 not to handle any asbestos cargoes in a bid to speed up the banning of asbestos in Australia.

The Australian debate had been rekindled by the publication of a lengthy National Industry Chemicals Notification and Assessment Service (NICNAS) report on chrysotile asbestos in February 1999. The NICNAS came out in favour of an full-on ban on asbestos, leaving government to set a date for the ban to enter into force.

Then, virtual silence for nearly two years. The National Health and Safety Commission was deadlocked over the time frame for an asbestos ban. The employers' and government representatives simply wanted to phase it out over a period of years. The Australian Confederation of Trade Unions (ACTU) wanted a total ban sooner rather than later.

Australia has one of the highest rates of mesothelioma in the world. Forecasts are for 16,000 asbestos-related mesothelioma and 40,000 lung cancer deaths between 1987 and 2010. The mortality rate from asbestos-related diseases is currently running at some 3,000 workers a year - more than mortality from all work injuries combined. Recent years have seen a rise in recorded mesothelioma deaths among 20-40 year-olds. Given the long latency periods for mesothelioma, this suggests that environmental exposure is also a major health concern. That is why trade unions want a register of asbestos-containing buildings drawn up and a national programme of asbestos removal.

Trade unions have been fighting for years to get asbestos banned and recognition for victims' occupational diseases. They succeeded in getting the Wittenoom, Barbara and Baryulgil mines shut down, and all production of the mineral was halted in 1983 in Australia. But asbestos is still being imported, mainly for the manufacture of friction materials (brake linings) and heat-resistant seals. The main asbestos user is Bendix Mintex, which was still importing 1,500 tonnes of asbestos ore in 2000. The Australian construction industry seems not to use asbestos cement.

The unions won the right to stop work if asbestos use rules are violated. But the exposure limit set by the NOHSC is still very high (1 fibre/ml). Some states and territories may set lower limits. Unions are also campaigning for an asbestos research institute to be set up in New South Wales to support victims and develop better management strategies.
In December 2000, trade union lobbying led the main asbestos user (Bendix Mintex) to reach a deal on replacing asbestos with other less dangerous products. A spate of lawsuits against past and present asbestos-using firms have finally persuaded employers that an asbestos ban is inescapable. Recently, one of the main asbestos using companies, James Hardle, had to set up a 300 million AUS$ fund to underwrite the compensation payable to 400 victims who were suing it.

Finally, on 14 March 2001, the National Occupational Health and Safety Commission (NOHSC) served notice of its plans to propose a total asbestos ban. The Commission is a tripartite body with key responsibilities in the development, running and assessment of prevention programmes in Australia, and powers to propose new regulations. The NOHSC has published three reports on the health assessment of alternative materials to asbestos, a technical assessment of alternatives to asbestos, and an initial economic impact assessment of the measures proposed[1]. Before even being published in March, the NOHSC statement of intent had the backing of five Australian States and Australia's leading asbestos-related products industry group. On 11 April 2001, the remaining states and territories fell into line, and the federal government pledged to support an asbestos ban, which should be effective from 31 December 2003.

Brazil

Brazil is a comparatively recent asbestos ore producer. The first mine at São Felix do Amianto à Poções in the State of Bahia was only opened around 1940. It was declared exhausted and closed in 1967, leaving a real environmental disaster in its wake. A much larger mine was later opened up at Minaçu in the State of Goias. Multinational corporations' investments received state backing under the military dictatorship. All independent trade union activity was classed as "subversion"[2]. The first legislation controlling asbestos use was not enacted until the late 80s. The first - woefully lacking - limitation was set in 1989 in a national agreement on safe asbestos use. In 1993, a group of left opposition MPs tried to get asbestos banned on the basis of the first systematic data revealing the extent of asbestos exposure health problems suffered by Brazilian

[1] All downloadable from: http://www.nohsc.gov.au/NewsAndWhatsNew/MediaReleases/mr-140301.htm.

[2] Recent investigations reveal that some terrorist operations linked to political repression, like Bandeirantes Operation in which 1,200 people were subjected to prolonged torture between 1968 and 1970, were directly employer-funded (H. Contreiras, Segredos do porão, *Isto é*, 21 February 2001).

workers[3]. The parliamentary debate dragged on for two years. The asbestos lobby succeeded in getting chrysotile asbestos dropped from the bill (Act 9.055 of 1995), leaving only asbestos spraying under a complete ban.

Today, Brazil is a major asbestos ore producer. An annual output of 200,000 to 250,000 tonnes (figures for 1992-1997) ranks it as the fifth world producer after the Russian Federation, Canada, China and Kazakhstan[4]. Unlike Canada, which exports almost all of its output, Brazil is a huge asbestos user. An estimated three quarters of its production goes for a range of home market uses. About 85% of asbestos production is used to make asbestos cement (tiles, water tanks, tubes and pipes), the remainder being used mainly by the motor vehicle and textile (heat-resistant protective clothing) industries. The asbestos materials manufacturing base is thought to be highly dispersed into thousands of small firms, with an estimated 300,000 workers exposed. Most of its export sales are to Asian (India, Thailand, Japan), African (Nigeria, Angola) and other Latin American countries.

The federal government's dithering has led many local authorities to take steps to prohibit asbestos use within their jurisdiction.

Municipal governments led the breakthrough in 1997 with draft municipal legislation banning asbestos in the São Paulo industrial suburb of Osasco where an Eternit factory manufacturing asbestos-cement materials had long been sited and many workers had died of asbestos-related diseases. The law was passed in 2000, and the township of Osasco hosted Brazil's first international congress for an asbestos ban in September 2000. The October 2000 municipal elections were marked by considerable advances for Workers' Party (PT), which developed out of trade union opposition to the military dictatorship in the 80s. The number of PT-controlled town councils rose to 187 which, with over 28 million residents, accounts for about 18% of the Brazilian population. In the State of São Paulo alone, nearly a dozen municipal councils, often in large industrial towns, outlawed asbestos use. On 15 February 2001, the municipal council of São Paulo, which with Mexico is the most populous town on the American continent, passed a law banning any use of asbestos-containing materials in the construction industry. The movement is now spreading to many municipalities in other Brazilian states.

The legislative assemblies of several states have followed suit. Workers' Party MPs in the States of Mato Grosso do Sul (January 2001), São Paulo and Rio Grande do Sul (May 2001), and Rio-de-Janeiro (June 2001) have steered legislation through their own assemblies banning asbestos. Similar governmental

Asbestos lobby tries to silence Brazilian labour inspector

One of the leading lights in the movement to get asbestos outlawed in Brazil is labour inspector Fernanda Giannasi. She has come under repeated attack from the business community, and has even been threatened by the state security forces for her activism in favour of workers with asbestos-related occupational diseases (Fernanda is an organizer of the Brazilian Association of Asbestos Victims - ABREA).

Recently, the Montreal-based Asbestos Institute attacked Fernanda Giannasi in a letter to the Brazilian Labour Minister, specifically charging her with acting against Brazil's trade interests by arguing for the asbestos ban. The letter effectively concludes with a demand that she be punished, saying that if Fernanda takes lines on asbestos for which she is not formally authorized by the Brazilian Ministry of Labour, the Asbestos Institute will ask the Ministry to "*take the necessary measures so that Mrs Giannasi no longer abuses her professional responsibilities to promote her personal activities*". The letter is signed by the Institute's Director, Mr Denis Hamel and dated 23 April 2001.

This kind of letter is a dangerous attempt to curtail the freedom of expression and independence of labour inspectors. The Brazilian Ministry of Labour did not take kindly to the Asbestos Institute's attempted bully boy tactics, and made no bones about it in statement from its press spokesman: "*This meddling by international institutions is unacceptable. Our official Fernanda Giannasi is an experienced professional in this field*"[5].

[3] The first Brazilian study on asbestosis cases dates back to 1956. Other studies were published in the 70s, but it was not until 1986 that the first national seminar on dangers of asbestos was staged by different national agencies (see *Revista Brasileira de Saude Ocupacional*, No 63, vol. 13-1988). Detailed information on Brazilian research into asbestos-related diseases is available in; René Mendes, *Asbesto (amianto) e doença*, on: http://www.saudeetrabalho.com. br/.htm.

[4] Kazakhstan produces more or less than Brazil, depending on the source and reference year.

[5] See *Correio Braziliense*, 4 July 2001.

bills are currently under discussion in the legislative assemblies of other states (especially Minas Gerais and Bahia).

A nationally-edicted countrywide asbestos ban is currently being debated by the Brazilian Parliament in response to draft legislation tabled by PT and Green Party MPs. The initiative has been met with fierce lobbying by asbestos interests. Environment Minister José Sarney has repeatedly pledged that asbestos will be outlawed before the term of the present executive expires in 2003. An initial statement to this end was made in July 1999 and the National Environmental Council (Conama) is engaged with the issue. But Minister Sarney has said that he has powerful forces to contend with. The asbestos lobby has particularly active links in two of the coalition parties which support President Cardoso: the Party of Brazilian Social Democracy the President's own party), and the Brazilian People's Party, a political group set up by staunch supporters of the former military dictatorship. The rapporteur for the parliamentary committee tasked with discussing the draft legislation banning asbestos is a right-wing MP, Ronaldo Caiado, who makes no secret of his antipathy to the bill.

The Asbestos Institute (a Montreal-based front for the asbestos employers' interests) stepped up its lobbying activities and sent out a delegation in June 2001 to try and sway the federal Parliament. The Canadian pro-asbestos lobby disingenuously points the finger at "wealthy nations" seeking to promote substitute products, and put themselves across as champions of emergent countries' rights to development. "*These wealthy countries are (...) the ones with powerful transnational companies that made their fortunes over the years by using asbestos. Today, they are the ones fighting to ban it and they offer other products that are supposedly better for people. They leave disastrous years behind them. These are the same companies that made thousands of people work under terrible conditions where workers were exposed to inordinately dusty work environments, filled with fibres left in the air that were breathed into the lungs. This is why, years later, we still find workers who suffer from pulmonary diseases and lung cancer*". The anti-imperialist rhetoric of this statement rings hollow given the extent to which the Asbestos Institute has helped cover up the actions of these multinational corporations during these "disastrous years". It is true to say that some multinational asbestos firms have embraced a sort of green capitalism, with self-righteous statements about social responsibility and environmental protection. It is no less a fact that not all of these firms plan to make good the health and environmental disasters left in their wake. Yet other firms like Eternit-Etex opt for a double standard: asbestos for dominated countries, substitute products for dominant countries. And Canada is the leading exponent of that double standard, using barely 6,000 tonnes of asbestos but producing 500,000 tonnes of ore in 1994.

Chile

The production, import, export and use of all varieties of asbestos and asbestos-containing materials was outlawed by Decree 656 of 12 September 2000, which came into force in June 2001.

Article 2 bans the use of all asbestos-containing materials in the building industry. This is a major triumph for victims' associations, trade unions and environmental groups which have been battling for years to get asbestos banned.

A committee set up by the Ministry of Health to look into asbestos issues in 1999 concluded that asbestos could be replaced with safer materials. The Confederation of Building Workers was a major contributor to the debate, giving evidence that the set-up of the construction industry, based on routine use of subcontracting, made any controlled use strategy a non-starter. It faced the full-blown hostility of construction industry employers who did not want a firm date set for ridding the industry of all asbestos-containing material.

Exemptions are still allowed in some other sectors of the economy with prior Health Ministry authorization.

Chile has been Latin America's largest user of building asbestos[6]. A census carried out in 1992 found that 43.6% of houses had asbestos-cement roofing (compared to 24.5% in El Salvador, 17.9% in Mexico, 15.8% in Cuba and 10.4% in Ecuador). Most of it is public sector housing or the shanties lived in by the poorest in society. ■

[6] C. G. Ramos, Enemigo in casa, *Qué pasa*, No 1377, September 1997.

"Doing away with asbestos" : what strategy for health protection ?

The trade union fight against asbestos didn't end with the EU's total ban on new asbestos use.

Wrecked health due to asbestos will remain a big issue for some years to come, so there must be no let-up in the pressure. The trade union strategy centres on several fronts.

Better legal protection for workers who use asbestos

A revision of the Community Asbestos Directive is in hand. The ETUC has already criticized the Commission's stance on several points. As a point of principle, any exposure limit set should be AT BEST no higher than the lowest exposure limit value currently allowed in a Community State. The point is that no exposure limit offers total protection from carcinogens, so the aim must be to achieve the lowest exposure limit value technically possible. Trade unions also demand that :

- The new directive must not exclude any form of work or sector. Special attention must be paid to seeing that it covers self-employed workers.
- All asbestos removal work must be carried out by contractors approved on the basis of appropriate criteria (industrial training, proper protective equipment, experience of this type of worksite, etc.).

Public registers of asbestos-containing buildings

These are essential on at least two counts.

- The rules on worksites where workers are exposed to asbestos are unworkable without a prior assessment of the buildings concerned. In practice, the worst asbestos exposure seems not to occur on asbestos removal sites but on other building conversion or demolition sites where the presence of asbestos was either not known about or was deliberately concealed.
- A series of recent studies also highlight the threats posed by environmental contamination by asbestos - asbestos-containing buildings tend to be places where people live and work.

Recognition of asbestos-related occupational diseases

Recognition of asbestos-related occupational diseases still faces many hurdles in all EU countries. It is a textbook example of the social injustices created by the failure to harmonize the criteria for recognition of occupational diseases. A study of the 1995 data[1] revealed continuing gaps between EU countries over recognition of mesothelioma (lung cancer caused by asbestos).

In 1995, the United Kingdom recorded 1,139 male deaths from mesothelioma and 659 recognized cases - a rate of 58% of recognized cases for all deaths. The rate was 61% for Germany, 14% for France, 12% for Sweden, and 5% for Italy with 34 cases of recognized occupational disease in 653 mesothelioma deaths. Clearly, these data are not comparable "as is" because of differences in cancer mortality records. What they do, however, is show the divides that no objective data on non-occupational asbestos exposure can explain away.

There is every good reason to suppose that under-recognition of asbestos-related lung cancer is even higher. The data on asbestosis also reveal significant disparities. Incidences can vary from 1 to 96. So, for an all-EU average of 30 asbestosis cases per million workers recognized as occupational diseases, there is 1 case per million in Portugal, 2 in Greece and Spain, 13 in Italy, 28 in the United Kingdom, 30 in France, 59 in Germany and 96 in Belgium.

Recognition of all asbestos-related occupational diseases cannot be divorced from improvements in national systems for recognizing occupational diseases in line with the guidelines laid down in the different Community Recommendations on the matter (the 1962, 1966 and 1990 Recommendations). The evidence is that simple recommendations are no way to achieve the aims set.

There is also an indissoluble link between recognition of occupational diseases, registration of exposed individuals, and public health system recording of the different types of cancer. Making linkages between these types of records is clearly crucial.

The recognition of occupational diseases must go in hand with improved treatments.

Bringing the death merchants to book

The dangers of asbestos were known about at the beginning of the 20th century. Since at least the 1960s, there has been a consistent-enough body of evidence to warrant banning asbestos. Legal

[1] The figures cited here are taken from A. Karjalainen and S. Virtanen, *European Statistics on Occupational Diseases. Evaluation of the 1995 Pilot Data*, Luxembourg: Eurostat, 1999.

action against those directly responsible for exposing workers to asbestos is especially important given that the flat-rate compensation provided by occupational disease compensation schemes comes nowhere near what could be obtained as full compensation in liability proceedings. It is also important to make the political point that, when it comes to occupational health, criminal acts should not be tolerated in the way they traditionally have been.

Policing the activities of European firms in third countries

European firms continue to operate to a double standard in third countries. Prevention policies are implemented in Europe, but not elsewhere in the world. This is a problem not confined to asbestos alone.

Ban the export of asbestos-containing waste to third countries

The most worrying aspect of the policy of exporting toxic waste is shipbreaking in East Asia (see box).

Policing the PPE market

Workers exposed to asbestos usually use personal protective equipment (PPE). But these may not be effective enough. It depends on the quality of the equipment itself and the actual conditions of use. A Finnish survey of high-performance respiratory protection devices found that only 8 out of 21 appliances tested gave workers proper protection against asbestos fibres[2].

Most equipment is still laboratory quality-tested, without regard to actual conditions of use. What is needed is an orderly, comprehensive feedback of experience on PPE performance and proper policing of the PPE market. ■

Recent figures bear out the true dangers of asbestos, be it from low-dose occupational exposure, or exposure from environmental or domestic sources. These figures must be an incentive to set occupational exposure limits at the lowest level technically possible and to make an immediate start on a register of all asbestos-contaminated structures.

An analysis of admissions to French hospitals in 1998[3] found that 3,500 people were hospitalized for asbestos-related cancers. The survey found that over a third of victims were women. Asbestos-related cancers affect a much wider population than just process plant workers. In twenty or so cases, cancers had developed in people younger than 20.

A Spanish survey on mesotheliomas done between 1993 and 1996 in the provinces of Barcelona and Cadiz found that nearly 40% of mesotheliomas could be attributed to environmental or domestic exposures[4]. This survey forms part of wider European research project covering six regions in three countries (Italy, Switzerland and Spain) on the basis of which the researchers concluded that living within a 2,000 metre radius of an asbestos mine, asbestos-cement plant, asbestos textiles, shipyards or brakes factories increases the risk of mesothelioma twelvefold[5].

[2] *Santé et Travail*, No. 32, p. 34.

[3] P. Benkimoun, 3,500 people treated for asbestos-related cancers in 1998, *Le Monde*, 29 March 2001.

[4] A. Agudo *et alii.*, Occupation and Risk of Malignant Pleural Mesothelioma: A Case-Control Study in Spain, *American Journal of Industrial Medicine*, Vol. 37, pp. 159-168.

[5] C. Magnani *et alii.*, Multicentric study on malignant pleural mesothelioma and non-occupational exposure to asbestos, *British Journal of Cancer*, No. 83 (2000), pp. 104-111.

Scrapping asbestos-laden hulks

Industrial countries are increasingly shipping their toxic waste off to Third World countries in a trend spurred by the marketable right to destroy the environment. Free-market economists apply the same rationale for buying and selling pollution rights in order to justify the export of toxic wastes to countries "freely willing" to run the risk for cash.

One case which points up how tragically acute this situation is as regards asbestos is shipbreaking in India, Bangladesh, the Philippines and China. The biggest of these scrapping sites is at Alang in the Indian State of Gujarat. Geographical peculiarities which create a huge tidal range between low and high tide in Alang Bay allows ships - including deep-draught ones - to be simply driven onto the beach during full moon high tides, dispensing with the need for proper dry-dock shipbreaking facilities. Between 35,000 and 40,000 workers from poverty-stricken rural communities work on them in inhumane conditions for basic pay of about $1.5 a day. Working completely unprotected and kept in total ignorance of the dangers involved, these men and women have to strip the structural steel work from the ships for sale on the local market. Work-related accidents are high and hygiene appalling. They do not even have showers in their makeshift lodgings.

Most of the ships built in the 60s and 70s are packjam full of asbestos and a host of other toxic substances like arsenic, cadmium, PCBs, etc. Greenpeace estimates that about 700 such vessels are sold each year to brokers for scrapping at these Asian shipbreaking locations. It is common practice among European firms. Amongst others, the Anglo-Dutch shipping line P&O Nedlloyd, Hamburg Süd (a subsidiary of the German food group Dr Oetker) and a subsidiary of Hapag-Lloyd, have been condemned by Greenpeace for sending asbestos-containing ships to these killer scrapping sites.

Most of these companies are obviously not too embarrassed by their practices to flaunt "environmental charters" and their belief in "corporate social responsibility". The P&O Nedlloyd group has adopted the International Safety Management System for its operations which, as well as marine safety, is also supposed to cover certain environmental protection aspects. In 1995, the head of the Oetker Group, August Oetker, was awarded the title of "Eco-Manager of the Year" by the WWF (World Wide Fund For Nature) and the German magazine *Capital* for his drive to cut waste and promote environmentally-sound production.

Technically, the export of toxic waste from OECD to non- OECD countries has been illegal since 1995 by agreement between the parties to the Basel Convention on the Control of the Transboundary Movement of Hazardous Wastes. But the Convention is not being enforced. It is our understanding that the EU has done nothing to halt the scrapping of toxic waste-laden ships in East Asia.

For further details on shipbreaking in Asia, see :

- http://www.greenpeace.org.au/info/archives/toxic/trade/scrapasia.htm
- http://www.zotnet.net/~erunners/e127/scrapping.html
- http://www.sunspot.net/news/custom/shipbreakers/ndx_en.shtml

Photos by Perry Thorsvik:Sun Staff

EN 292 : the internationalization challenge

EN 292 - Safety of machinery is a basic standard drawn up in 1985 when Member States were negotiating the Machinery Directive. It sets the benchmark rules for both machinery designers and standards developers. Starting out as the first technical standard to embody the European consensus on how to make safe machinery, EN 292 is now moving into the international arena, as part of the increasing interest of many non-European countries in the New Approach strategy for product regulation.

In May 1999, CEN TC 114 - Safety of Machinery and ISO TC 199 - Safety of Machinery decided to revise both documents under the Vienna Agreement (regulating technical cooperation between ISO and CEN) under CEN's leadership. As a result, a Special Working Group consisting of experts from ISO, CEN, IEC and CENELEC is currently discussing the comments received from the parallel enquiry on prEN 292/DIS 12100 parts 1 and 2. The CEN Special Working Group is therefore faced with the taxing job of addressing the many technical comments received and moving the standard on towards a positive Parallel Formal Vote.

There are three fundamental challenges to the revision process: overlapping (inevitable given the nature of an A-standard), duplication (resulting from the progress made by B-standards), and contradiction (which all stakeholders want to avoid). In fact, given the hierarchy of A, B and C-standards, an ostensibly minor change to EN 292/ISO 12100 would have immediate knock-on effects on other machinery safety standards.

Pending the forthcoming (and concluding) revision meeting planned for september 2001, a number of things can be said about what the Special Group's Comments Resolution Meetings (CRMs) have achieved so far.

Terminology, manufacturers' responsibilities, risk reduction, requirements for guards, use of optoelectronic protective devices, mobility & lifting, non-professional users, are just some of the crucial issues behind the revision process. One of the first challenges is getting general agreement in CEN and ISO to ensure consistency between the definitions given in EN 292 and ISO/IEC 51 - Guide "Safety aspects - Guidelines for their inclusion in standards". However, both ISO and CEN recognize the main difference between the two standards, since ISO/IEC 51 applies to safety right across the board, while EN 292 deals with safety of machinery at the design stage.

An animated debate focused on the concept of **tolerable risk**, which some experts wanted including on the grounds that it is widely used in international engineering, and a valuable help to designers in understanding when to conclude the iterative risk reduction strategy. Other experts, however, argue that tolerable risk conveys ideas that run counter to the principles of the Machinery Directive and, as such, has no place in EN 292, which lays down a risk reduction strategy intended to maximize risk reduction by making best use of available technology. Tolerable risk might also be misconstrued as a static concept, leaving it open to prejudge the risk reduction level to be achieved. The TUTB argues that manufacturers are not entitled to shirk their safety duties by dictating what risks are acceptable for others. Manufacturers face risks like economic loss, and civil and criminal liability for accidents; operators face risks to life and limb. So, public authorities would only have the power to monitor risk reduction as implemented by manufacturers and make a decision whether the risk achieved is tolerable or not.

Another factor discussed is **residual risk**. The international context in which EN 292/ISO 12100 will be used calls for appropriate allocation of responsibilities between user and designer in relation to risk reduction. The fact is that the European framework differentiating the legal duties of designers and users is today facing claims from countries which have no legislation equivalent to the Machinery and Work Equipment Directives. So, on one hand EN 292/ISO 12100 should not deal with user responsibilities, while on the other, it should deal with safety measures to be implemented by both manufacturers and users. In the former case, the residual risk should be the risk which manufacturers cannot design out of the machine; in the latter, it would be the risk level remaining after all safety measures implemented by both manufacturers and users. But differences also exist here in relation to risk reduction as such: some, for example, have questioned whether 'information for use' can be considered a risk reduction measure, since it has value only when the user makes the best use of it. Others want a recognition that different machines require different levels of user involvement, which may be responsible for the greater contribution to risk reduction.

In short, 'going international' has meant scrutinizing even basic concepts like "safety", "hazard", "risk", "inherent design", etc. It is not just a matter of terminology: it reflects the very different understanding of those basic concepts in different times, circumstances, societies, and industry sectors. ■

Stefano Boy, TUTB Researcher
sboy@etuc.org

Standards on biomechanics : close to formal vote

TC 122 Ergonomics Working Group 4 is currently developing the series prEN 1005: Parts 1-5 on human performance related to safety of machinery. Not all parts are at the same stage of progress.

Parts 1 (*definitions*) and **3** (*force limits*) have been accepted by CEN TC 122 for the formal vote.

Part 2 (*manual handling*) is being put forward to formal vote after consideration of the outcomes of voting on the Technical Committee's enquiry, and in line with the recommendations of WG 4. The outcomes of the last TC enquiry on the **fourth** version of the draft were fairly disappointing. There were too few votes to send the standard to formal vote because of the higher-than-permissible percentage of abstentions. The reasons for the votes against ranged from insufficient coverage of all workers regardless of gender, complicated and misleading reference tables for identifying the user population, and disagreements on using limit values in the standard. In fact, the standard covers only 70% of the female population for the basic reference mass of 25 kg on which the risk assessment is based. Furthermore, in the same table, a reference mass of **40 kg** is cited, although there is no data available for the special population that would be able to handle such heavy loads. Nevertheless, TC 122 decided to submit the draft directly to formal vote, in the expectation that those countries which abstained will vote positively. Working Group 4 proposed that the TC Secretariat start the standard revision procedure as soon as possible, after its acceptance as a European standard.

Part 4 (*working postures and movements*) was revised and accepted for the second enquiry. Notwithstanding the majority positive vote in the first enquiry, the Working Group strove for a consensus by further changing the document in line with comments received, most of them editorial. There were, however, some comments on the results of the evaluation system and movement frequencies, specifically for the upper arms. The final draft sought to incorporate most of the comments without substantially changing the standard in ways that might jeopardize potential positive votes from some countries.

Part 5 (*repetitive work*) seems to be hard going for Working Group 4. A revised text was discussed at its special drafting group's last meeting in May. Not all participants were in favour of having one single quantitative model of assessment in the standard. Discussions focussed on certain values mentioned in the OCRA method[1] set out in the standard, that were considered very high specifically for new machinery (in particular the frequency of 60 actions/ minute).

On top of that, the German National Committee put a proposal to the last plenary meeting of CEN/TC 122 either to delete the work item or change the deliverable to a technical report. A standard might then be developed 2 years later. The reasons for this were lack of progress and too little evidence on which to base a risk assessment method of repetitive work. The counter- arguments put forward in the plenary were that standardization is always a lengthy process, and there are other examples of working groups taking longer than this to produce a final draft for a work item. This working group had already made considerable headway on this item. Secondly there was sufficient scientific evidence on the work relatedness of MSD and the need to produce a standard without further delay to support the relevant ergonomic essential safety requirements was clear. In the end, TC 122 voted down the proposal.

The prEN 1005 series of standards, especially parts 2 and 5, came under fire from the rapporteur of the Occupational Health & Safety Sector, Mr. Vigone, for purportedly setting limit values. He therefore initiated a meeting with the chairman and secretariat of TC 122 and the convenor of Working Group 4 to discuss the issues. The counter-arguments were that values cited in standards are only used as references for risk assessment methods. The outcome of the evaluation process was a risk index for both standards. Also, some misleading wording in the standards had already been removed in the most recent versions.

It was stressed that to avoid future problems in this area, the scope and content of standards should clearly state that they concern machinery design only. Finally, a decision was taken to draft a special resolution in the TC Plenary giving the Technical Committee on Ergonomics' agreement that all extensions of its work program on matters covered by Article 137 of the Amsterdam Treaty, will take account of the conditions set in CEN BT Resolution 22/1997[2]. How much this new resolution adds is questionable, however, since all CEN Technical Committees are already bounded by the BT's 1997 resolution.

It appears that the closer these series of standards get to the formal vote, the more forceful the objections become. However, not all adverse comments stem from the same grounds - anything but. The Nordic countries object to some parts of the standards because they set lower requirements than their national legislation and practices, while other countries think the existing requirements on manufacturers are set high enough.

Theoni Koukoulaki, TUTB Researcher
tkoukoul@etuc.org

[1] See E. Occhipinti, D. Colombini, "Assessment of exposure to repetitive upper limb movement : An IEA consensus document", Special report on Musculoskeletal Disorders in Europe, in *TUTB Newsletter* No. 11-12, June 1999, pp. 22-26.

[2] Resolution BT 22/1997 in which the Technical Board of CEN approved the "Standardization policy in the area covered by Article 118A of the EU Treaty" (Document BT N4777, 1997-02-12).

General ergonomic standards face international impact and overlapping concerns

CEN/TC 122 set up Working Group 12 specifically to draft standard EN 13861: Safety of machinery-Guidance for the application of ergonomics standards in the design of machinery and for drafting of ergonomic clauses in standards. The clear lack of ergonomics in the C standards[1] made the need to develop such a standard increasingly urgent. The TUTB and Paul Makin, CEN consultant in the Machinery Sector, had initiated and supported the process.

The standard in its current form has been submitted for 2nd TC enquiry to CEN/ TC 122 and CEN/TC 114 before circulation for formal vote. Even though the outcome of the first enquiry was positive, it was decided to amend the standard in line with various comments received, namely the possible overlap with other standards, its complicated scope, and the status of the standard itself[2]. So far, the standard remains just that, because it is an important document that will plug an existing loophole in the application of ergonomic standards. Apart from a step model on how to apply ergonomic standards, it contains a useful table and a short abstract of all the ergonomic standards for the relevant hazards mentioned in EN 1050[3]. To address the comments received, the working group amended the scope and cut out all references to drafting C-type standards. The title[4] and content were revised accordingly. It was also agreed to follow closely the work of WG 2 on EN 614-1 amendment on general ergonomic principles to avoid possible overlap.

The basic ergonomic standard EN 614-1:1995: Safety of machinery - Ergonomic design principles - Part 1: Terminology and general principles, is currently under revision. ISO 6385: 1981- Ergonomic principles in the design of work systems is being amended at the same time. The two revisions will be carried out in conjunction so as to achieve a consistent terminology and avoid overlapping provisions. The revision of ISO 6385 started out life as an ENV document intended to be the basic standard in the field of ergonomics that would incorporate EN 614-1. It is now being developed as an ISO DIS document. The last meeting of TC 122 Working Group 2 discussed whether EN 614-1 should be kept as the basic mandated ergonomic standard since its scope is not covered by ISO 6385. Also, a new revision of ISO 6385 is planned sometime in the future, also to review the standard' user-group and expand it from just workers to include consumers.

TC 122 proposed that ISO 6385 should deal mostly with general definitions, ergonomics principles and human interaction with the work process, while EN 614-1 will stick to machinery-related issues.

The international version of the ergonomic standard will impact its European counterpart, in some cases negatively. Although EN 614 is clearly focused on machinery, when applying ergonomics to working equipment design it is difficult to perform the evaluation without factoring in interactions with the work environment and work organization. Moreover, machines sometimes dictate work organization aspects, which prevents a clear separation and allocation of ergonomic issues - i.e., design of machinery and design of work process to different standards - from being made. The result would be incomplete ergonomic standards. The second part of EN 614[5], which particularly addresses task design interaction issues, has recently been adopted as a European standard, in the face of immense pressure not to have it published separately.

Furthermore, ergonomics is a much broader concept in the international than New Approach Directives context. For example: the international standard's definition and concept of ergonomics is focused on optimizing system performance and productivity, whereas the Machinery Directive addresses only the health and safety aspects. The evaluation chapter of the ISO standard includes performance among the categories to be evaluated for application of ergonomics. Between the different parameters and criteria, unsafe behaviour is cited in the safety category, and quality and quantity in the performance category. In the Machinery Directive and the harmonized standards, evaluation is carried out against the ergonomic requirements. The ultimate aim is to produce inherently safe machinery which embodies the ergonomic concept of fitting the design to the human being, to promote operators' health, safety and well-being. It is true that ergonomics can also improve performance in a work system but the Machinery Directive has a totally different focus. But, the process of increasing performance may also have adverse effects on workers' health and safety. Also, the context of worker participation here differs from European practice. To quote from the draft ISO 6385 standard *"Workers shall be involved and should participate in the design of work systems during the process in an effective and efficient manner"*. This wording calls to mind concerns about imposed participation in Total Quality Systems in USA and Japanese industry which has come under heavy fire in recent decades.

So it is hard to define distinct areas of standardization for the two bodies (CEN and ISO) and avoid all overlap. In some cases, overlap may be positive in emphasizing similar principles with a different focus. ■

Theoni Koukoulaki, TUTB Researcher
tkoukoul@etuc.org

[1] These standards address requirements for specific classes of machinery like woodworking machines.

[2] Finland and Germany wanted it published as a guideline or Technical Report.

[3] EN 1050: Safety of machinery-Principles of risk assessment, 1996.

[4] New title of prEN 13861: Safety of machinery-Guidance for the application of ergonomics standards in the design of machinery.

[5] EN 614-2:2000: Safety of machinery-Ergonomic design principles-Part 2: Interactions between the design of machinery and work tasks.

Opinion on MSD : An impulse for new initiatives from the European Commission

In May 2001, the Advisory Committee on Safety, Hygiene and Health Protection at Work adopted an opinion on Musculoskeletal Disorders (MSD) calling for Commission initiatives on MSD prevention. Regulatory and non-regulatory measures will be envisaged to increase the level of primary MSD prevention at workplaces in Europe. This was the outcome of more than 5 years' campaigning by European trade unions to put MSD on the European agenda.

What the opinion says

Basically, the MSD opinion falls into four parts. An introduction, presenting statistics, Community legislation and MSD-related standards, conclusions on the main factors holding back the introduction of prevention measures in European undertakings, basic elements on prevention policy, and concrete recommendations to the Commission. There is no specific reference to or focus on SMEs, because MSD is seen as a universal problem in all workplaces, irrespective of size.

There is a general recognition by all stakeholders that MSD constitutes a serious health & safety problem for Europe, which is not being effectively addressed by prevention.

The **main factors** accepted as hindering prevention of MSD in Europe are failings in existing legislation, lack of comprehensive knowledge at enterprise level, and difficulties in drawing up effective prevention plans. Although general and specific legislative provisions covering some MSD do exist, coverage of upper limb disorders falls short of what is needed. Also lack of specific information and training is recognized as obstacle to awareness in workplaces across Europe.

The **prevention policy** suggested includes basic requirements like a two-step risk assessment for all MSD risks including work organization risks, a participatory and multidisciplinary approach, implementation of corrective measures, giving consideration to MSD when purchasing new work equipment or making changes to work organization, information and training. The need for better diagnostic criteria, particularly for early symptoms in health surveillance, is also made clear.

The **recommendations** referred to a further regulatory initiative targeted on preventing upper limb disorders after analysing the scope and coverage of existing directives and having taken into account the findings of the recent report on *Work-related neck and upper limb musculoskeletal disorders*[1]. Framing sector-specific, non-binding guidelines is also thought an important way of raising awareness among all partners in Europe. Both regulatory and voluntary initiatives should take the suggested prevention approach into account.

Achievements and future actions

Perhaps the Opinion's main achievement is to open up the possibility of future European legislation to cover upper limb disorder risks. That need was made clear by the Bilbao Agency's recent European survey on Neck and Upper Limb Disorders and the Nordic report[2] to be published this summer on evaluation of physical workload standards and guidelines. The latter concludes that all member states would benefit from a European Directive on repetitive work.

The ESC Opinion *Towards a Community strategy for health and safety at work*[3] adopted on 11 July also stresses the need for new European legislation on repetitive and monotonous work. Besides, the opinion adopted by the Advisory Committee for Safety & Health recognizes the organizational origin of MSD risks and the need for corrective measures on existing patterns of organization or to consider MSD when making changes to organizational structures.

Finally the importance of MSD management is emphasized, especially the need to improve diagnostic tools for early symptoms detection.

There are two areas for future policy action on MSD initiatives at EU level - the European Commission and European Parliament. The Belgian Presidency of the EU which took over in July has made the improvement of working conditions a priority of its social policy agenda. Follow-up initiatives on the recent Opinion on MSD should be incorporated in the program. The European Parliament can play a key role by pressing the Commission for action on the matter. The EP has so far been attentive to MSD issues. In response to the ETUC campaign, in March 1998, the European Parliament held a hearing on MSD, to which the TUTB was invited to give submissions.

Various interest groups were represented, namely workers, employers, experts and victims giving evidence based on their experience. All were agreed that MSDs are a major issue in Europe and that preventive action should be taken.

Trade unions have by now developed the basic framework for legislative initiatives to cover the risks

[1] Peter Buckle and Jason Devereux, *Work-related neck and upper limb musculoskeletal disorders*, European Agency for Safety and Health at Work, Bilbao, 2000.

[2] Nils Fallentin, Eira Viikari-Juntura, Morten Waersted, Asa Kilbom, "Evaluation of physical workload standards/ Guidelines from a Nordic perspective" to be published in August in the *Scandinavian Journal of Work, Environment & Health.*

[3] *Opinion of the Economic and Social Committee on Request by the European Commission for the Committee to draw up an exploratory opinion in anticipation of the Commission Communication on health and safety at work,* 11 July 2001 (SOC/065), available on : http://www.etuc.org/tutb/uk/pdf/opinion-esc-msd.pdf

of work-related upper limb disorders. In 1993, a proposal for a European Directive on Work Related Upper Limb Disorders was framed and submitted to the European Commission by Britain's GMB union in collaboration with union experts and academics.

A panel of experts will be set up in the future to further work up legislative proposals to be put to the European Commission.

While the many years' groundwork put in has created conditions more conducive to new initiatives for improved MSD prevention than in previous years, trade unions still have many battles to fight to get better legislation on the home straight. ■

Theoni Koukoulaki, TUTB Researcher
tkoukoul@etuc.org

Opinion adopted on 15 May 2001
(Doc. 0983/1/01) available on TUTB web site :
www.etuc.org/tutb/uk/pdf/opinion-acsh-msd.pdf

More information on European trade union campaign on the Internet :
www.etuc.org/tutb/uk/msd.html
Europe under strain : A European Trade Union campaign on prevention of MSD at workplaces, Marc Sapir and Theoni Koukoulaki.

The rise and fall of the OSHA Ergonomic standard

While the adoption of the Ad hoc Group Opinion seems to have opened the door to future legislation to improve prevention of musculoskeletal disorders in Europe, any similar prospects in the US look blocked for the immediate future, at least. Ten years of hard work by the Occupational Safety and Health Administration (OSHA) and AFL-CIO culminating in last November's standard laying down ergonomic requirements to prevent MSD was brought to nothing when Congress repealed the standard, getting President Bush's final endorsement barely 4 months later.

The OSHA's ergonomics program standard was issued on 14 November 2000, coming into effect on 16 January 2001. Congress acted under authority of the Congressional Review Act of 1996 to repeal the standard. As a result, employers and workers are not bound by its requirements.

On 6 March 2001, the United States Senate passed a resolution of disapproval (S.J. Res. 6) of the Ergonomics Program Standard under the Congressional Review Act. The House of Representatives then passed S.J. Res. 6 on 7 March 2001. President Bush signed the resolution into law as Public Law 107-5 on 20 March 2001. Accordingly, OSHA has removed the standard from the Code of Federal Regulations.

The AFL-CIO has responded by tallying the number of workers who have sustained an injury from an ergonomic hazard since 20 March, when the repeal of the standard was signed. The count - based on the Labor Departments' Bureau of Labor Statistics - has already topped 785,000 workplace ergonomic injuries.

Trade unions and activists are now looking at other ways of protecting exposed workers from ergonomic risks. Possibilities include calling for state or local government standards and including ergonomic protection in collective bargaining. At federal level, several members of the Congress have committed themselves to producing a new standard more "acceptable" to the national association of manufacturers. Any new standard that were to be issued would clearly have fewer teeth than the one repealed.

The Department of Labor recently announced three public forums in July to "discuss possible approaches to addressing ergonomic hazards in the workplace". The forums will address issues like the origins of ergonomic injuries, how to distinguish between injuries caused by work or non-work related activities, and cost effective types of government involvement. These questions have been asked and answered with scientific evidence from NIOSH and National Academy of Science reports. In conclusion, the debate is now back where it started some years ago with public hearing testimonies.

For further information contact :
OSHA : Office of Information at (202)-693-1999
http://www.osha-slc.gov/ergonomics-standard/index.html

AFL-CIO : Peg Seminario,
e-mail : pseminar@aflcio.org
http://www.aflcio.org/home.htm

Standardization

10-11 September 2001,
TUTB Network Seminar in Stockholm

The TUTB is co-hosting a meeting of its network of standardization experts this September in Stockholm with LO.
As well as discussing developments in European legislation, amendments to the Machinery and PPE Directives, Council common positions on noise and vibrations, the seminar will review the TUTB's standardization activities on safety of machinery, design ergonomics and mental stress.

The meeting will also see the launch of a joint TUTB/SALTSA three-year research programme. ■

Trade union strategies for better European standards

This joint TUTB/SALTSA three-year research programme will have three core aims :
- to make a detailed assessment of current practices and trends in trade union participation in standardization work in different European countries;
- to analyse the impact of international standards development on safety of machinery and design ergonomics standards;
- to map out prospects for using the experiences of workers as equipment users to inform the standardization process.

Chemicals and Environment

24-25 September 2001,
TUTB Network Seminar in Madrid

The seminar will focus on :
- an examination of the European Commission's White Paper European on *"Strategy for a Future Chemicals Policy"*, presenting the views of trade union representatives from different countries and working out a trade union strategy;
- linkages between worker and environmental protection instruments. Presentation of a TUTB study *Towards a European trade union perspective on sustainable development*, to be published in the TUTB's "Discussion Papers" series in October 2001;
- the state of play on European legislation and the debates around asbestos and occupational exposure limits, particularly for carcinogens. ■

EU enlargement process

22-24 October, TUTB Seminar in Prague

The tripartite seminar for candidate countries hosted by the European Commission's Employment and Social Affairs DG in Luxembourg on 2 April was the first event set up by the Commission to focus on occupational health and safety issues in the enlargement process. The agenda included information on European bodies dealing with health and safety (Advisory Committee on Safety, Hygiene and Health Protection at Work, Mines Safety and Health Commission, Bilbao Agency), and the new Social Action Programme. The European Commission pledged to press forward with joint tripartite activities in the health and safety at work.

The previous day (1 April), the TUTB held a meeting of trade union representatives from European and applicant country tripartite bodies to exchange information on social dialogue and tripartite co-operation in occupational health and safety matters. The TUTB intends to push ahead on extending various types of joint activities with representatives from candidate countries.

The TUTB will be holding a trade union seminar in autumn in Prague (22-24 October). Its main aims will be :
- to assess national reports on workplace health and safety conditions in 3 countries: the Czech Republic, Estonia and Romania;
- to discuss and analyse the initial results of the Dublin Foundation Survey on working conditions in Phare countries;
- the Swedish project on candidate countries under Work Life 2001;
- trade union health and safety training; and
- visits to two workplaces (industry and service sector). ■

Women, Work & Health

2-5 June 2002, Stockholm, 3rd International Congress

The next International Congress on Women and Health at Work will be held in Sweden in June 2002. We carried an in-depth a Special Report on the previous Congress (Rio, September 1999) in Newsletter No. 13 of March 2000. The 3rd Congress will focus on :
- Theme 1: Society, public policy, industrial relations and the organisation of work
- Theme 2: Working conditions and health
- Theme 3: Models and methods for science and practice

The TUTB is involved in the groundwork for this third international conference. ■

TUTB Survey on gender dimension in health and safety

The TUTB and ETUC have been working in recent years to make their workplace health policy more gender-sensitive. They plan to launch a survey on gender issues in occupational health in the fifteen EU countries between now and early 2002 in association with two research centres at the Free University of Brussels. The aim is to get a detailed survey of the gender issues in national policies, and to identify gender-sensitive workplace health schemes running on the ground.

The TUTB will be presenting the survey findings to a parallel seminar to the Stockholm conference in June 2002.

Further information on the TUTB survey on our web site :
www.etuc.org/tutb/uk/survey.html

Preventing work accidents in SMEs: a European Week and a 5 million euro Community programme

Last year, it was MSD. This year's European Week for Safety and Health at Work 2001 staged by the Bilbao-based European Agency for Safety and Health is targeted on preventing work accidents in SMEs. Traditionally held in October, the Week's activities will be run simultaneously in the Member States to raise safety awareness and promote good prevention practice, among smaller firms especially.

The Week will be rounded off at a joint seminar staged in Brussels with the Belgian Presidency on 22 and 23 November 2001. The theme for European Week 2002 will be stress.

On top of the European Week, the European Parliament has allocated a 5 million euro budget to promote the development and exchange of good accident prevention practice in SMEs. The programme is also being run by the Bilbao-based European Agency, and will co-finance three types of project - training in work accident prevention; information and communication on prevention; examples of good practices in reducing the risk of work-related accidents. Priority will go to projects run in partnership in several EU countries. Projects will be selected at the end of 2001, and the completion deadline is October 2002. ■

More details available on the European Agency website: http://osha.eu.int/ew2001/index.php?lang=en

PPE Directive amendment : towards an improved version?

The Commission has launched the process to amend Personal Protective Equipment (PPE) Directive 89/686/EEC under the old Article 100A of the Treaty, submitting a first working document to Member States' delegates at the last meeting of the PPE Standing Committee.

The amendment chiefly aims to tackle specific enforcement and interpretation issues, including market surveillance, clarification of different categories of PPE, and upgrading some PPEs against irreversible dangers to higher categories[1] without altering the concept of the Directive and relevant essential safety requirements.

A drafting group has been set up and held its first meeting on 10-11 June. The current working document with the drafting group's comments is good on the whole, and will help improve the existing directive, with the odd exception.

One area of concern is the introduction of new voluntary Modules[2] in the PPE certification procedures for Category III products[3].

Most members of the drafting group are against modules that do not involve third party quality testing of the product itself in the design and production stages. But no final decision has yet been made on this matter.

The drafting group will meet again in September, and the final draft is expected before the end of 2001. ■

Further information on :
www.etuc.org/tutb/news&events1.html

[1] There was a clear need to reclassify some category II as category III products.
[2] See *Guide to the implementation of directives based on the New Approach and the Global Approach*, European Commission, 2000, pp. 31-35.
[3] PPEs that are intended to protect against mortal danger or against dangers that may cause serious and irreversible harm to health

Work at a height: Council adopts directive

In June, the Council adopted Directive 2001/45/EC amending Work Equipment Directive 89/655/EEC to cover the risks of falls when carrying out temporary work at a height. It makes specific provision for the use of ladders, scaffolding and ropes. It is to be implemented by July 2004 (or 2006, given the maximum optional two year transitional period it allows). ■

Directive 2001/45/EC of the European Parliament and of the Council of 27 June 2001 amending Council Directive 89/655/EEC concerning the minimum safety and health requirements for the use of work equipment by workers at work *OJ* L 195/46 of 19 July 2001.

Framework Directive up before ECJ

The Court of Justice of the European Communities has sat to hear the first two sets of infringement proceedings relating to the 1989 Framework Directive. One is against Italy, the other concerns Germany.

In the first case, the European Commission contends that Italy has failed to transpose the Framework Directive properly on three counts:

- In Decree-Law No 626/1994, the risk assessment refers to a series of specified risks. The Decree fails to make it clear that this list is for guidance only and that the employer must evaluate all the risks.
- The enlisting of external preventive services is not expressly made compulsory for firms that do not have all the requisite expertise.
- Italy failed to define the capabilities and aptitudes of the workers designated to form the internal preventive service and failed to defined the external expertise. The Italian legislation leaves employers too much discretion.

The Opinion delivered by Advocate General Christine Stix-Hackl sides with the Commission's views.

In the other case, the Commission submitted that the German legislation had failed to transpose the Framework Directive properly because it relieves employers who employ no more than 10 workers from the duty of having a written statement of the results of the risk assessment. The Commission's arguments centre on three issues:

- the requirement to have a written evaluation of risks, regardless of the size of the firm;
- the employer's responsibility in regard to evaluating risks;
- the method of transposition used in Germany, where some of the Framework Directive's obligations have been enacted through compulsory rules laid down by the Berufsgenossenschaften (employer's liability insurance associations).

Advocate General Geelhoed supports the Commission's view as to the need for a written risk assessment. But he feels that the Commission has failed to prove that the method of transposition used in Germany was improper. He also agrees with the German government's argument that rules which require preventive services to carry out a risk assessment are inherently the same as the aims set in the Directive obliging employers to evaluate workplace risks. ■

References: Opinion of Advocate General Stix-Hackl in case C-49/00 Commission v Italian Republic, submitted on 31 May 2001, and Opinion of Advocate General Geelhoed in case C-5/00 Commission v Federal Republic of Germany, submitted 28 June 2001.

Member States wanted to negotiate... but not to ratify ?

The groundwork for the International Labour Organization's Chemicals Convention No 170 left the EU Member States and the Commission at loggerheads. The Commission wanted sole negotiating powers but not necessarily to have ILO Conventions ratified by the European Union. A Court of Justice opinion (Opinion 2-91 of 19 March 1993) clarified the situation. It showed that there was no real obstacle in Community law to ratifying ILO Conventions, and reaffirmed that the Member States had full authority to negotiate and ratify such Conventions.

Convention No 170 is in force, and the clear fact is that it has been ratified by only one EU State - Sweden - and that was in 1992 before it joined the EU. The other countries which have ratified it are Brazil, Burkina Faso, China, Colombia, Mexico, Norway, Tanzania and Zimbabwe.

Sadly, this is not a one-off situation. Many ILO health and safety conventions remain unratified by EU countries. Occupational Health Services Convention No 161, 1985, for instance, has been ratified only by Germany, Finland and Sweden (the latter two before joining the EU). The same three countries are the only EU States to have ratified Safety and Health in Construction Convention No 167, 1988.

Transposition of the Community Workplace Chemicals Directive should rekindle the debates on ratifying Convention 170. The World Trade Organization's attempt to usurp occupational health shows that backing off from ILO international labour standards means giving a hostage to fortune. ■

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Send applications, together with a curriculum vitae and any relevant publications, **by 30 November 2001, to Marc Sapir**, Director of the TUTB, Bd du Roi Albert II, 5 bte 5, B-1210 Brussels. E-mail: msapir@etuc.org

New "discussion papers" series

The TUTB has launched a new collection of short publications on headline issues at European level intended to spark off debates inside and outside the trade union movement. Called **"Discussion papers"**, the series opens with a TUTB/ETUC co-publication of the Luxembourg Advisory Committee's Workers' Group's input to framing the Community action programme on health and safety (see Laurent Vogel's article, p. 3).

A New Impetus for Community Occupational Health Policy

Laurent Vogel, TUTB researcher

TUTB, 2001, ISBN: 2-930003-39-1,
44 pages, 210 x 295 mm, 10 €
Also published in French as :
Pour une relance de la politique communautaire en santé au travail.

Next document to be published in the "Discussion papers" series : *Towards a European Trade Union Perspective on Sustainable Development.* ■

New TUTB report

Musculoskeletal Disorders and Work Organisation in the European Clothing Industry

by Jeremy Hague, Lynn Oxborrow, Lynn Mc Atamney (Centre for Work and Technology, The Nottingham Trent University)

In May 2001, the Luxembourg-based Advisory Committee adopted an opinion on Musculoskeletal Disorders (MSD) calling on the European Commission to take initiatives on MSD prevention. The call crowns European trade unions' long-standing efforts to bring MSD into the European debate.

The ETUC and TUTB had mounted a European campaign back in 1997 to put the prevention of MSD at the top of the European workplace health and safety policy agenda and support the actions of its affiliated national trade unions and European industry federations.

This report on the clothing industry by Jeremy Hague and his colleagues comes as the latest addition to the array of publications produced by the TUTB to support this Europe-wide campaign.

An industry-based survey was felt the best way to get insights into specific MSD problems, current scientific knowledge and relevant solutions. The clothing industry, with pay systems traditionally linked to work pace, offers an object lesson in repetitive work and MSD risk factors. The industry has been forced into wholesale restructuring in recent decades in a bid to respond to growing global market competition. The resulting intensification of work has led to worse working conditions and a higher incidence of MSD.

This report offers a comprehensive review of existing scientific knowledge related to MSD in the textile and clothing industry. It also examines organizational changes in the sector and the resulting health and safety issues, as well as practical examples of how trade union mobilization and participatory approaches have addressed MSD problems in different workplaces across Europe. ■

TUTB, 2001, ISBN: 2-930003-37-5,
90 pages, 210 x 295 mm, 20 €
In English only

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http://www.etuc.org/tutb/uk/msd.html

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The *Newsletter* No 11-12 Special Report on MSD in Europe is now available in Swedish as *Muskuloskeletala besvär i Europa* (in cooperation with the **Swedish** confederation LO). ■

Available on our Internet site :
http://www.etuc.org/tutb/uk/newsletter2_11.html

Information and orders:
Janine Delahaut (jdelahau@etuc.org)
Tel. : +32- (0) 2-224 05 52
Fax: +32- (0) 2-224 05 61
http://www.etuc.org/tutb/en/publication.html
TUTB
Bd du Roi Albert II, 5
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