

# **PERSONAL PROTECTIVE EQUIPMENT AT WORK**

**Final Study**

Working document for the STOA Panel

Luxembourg, September 1999

PE 168.188/Fin.St./rev

*Cataloguing data:*

Title: **Personal Protective Equipment at Work**

Workplan Ref.: EP/IV/B/STOA/99/20/01

Publisher: European Parliament  
Directorate General for Research  
Directorate A  
The STOA Programme

Author: **Ineke Malsch - Malsch Techno Valuation - Utrecht - The Netherlands**

Editor: Mr Dick HOLDSWORTH,  
Head of STOA Unit

Date: September 1999

PE number: **PE 168. 188/Fin.St./rev**

This document is a working Document for the 'STOA Panel'. It is not an official publication of STOA.  
This document does not necessarily represent the views of the European Parliament

# **Personal Protective Equipment at Work**

**A STOA study for the benefit of the EP committee on Petitions**

**Final report 2,  
incorporating some comments made by the British Sikh Federation,  
22 July 1999**

Written for the STOA unit of the European Parliament

Ineke Malsch  
Malsch TechnoValuation  
PO Box 455  
NL-3500 AL Utrecht  
The Netherlands  
Tel: +31 30 2662506  
Fax: +31 842 137482  
E-mail: [postbus@malsch.demon.nl](mailto:postbus@malsch.demon.nl)  
URL: <http://www.malsch.demon.nl/>

# Personal Protective Equipment at Work

## A STOA study for the benefit of the EP committee on Petitions

### Table of contents

Abstract	3
Executive Summary	4
<i>Part A: Options for EU policy for consideration by the European Parliament.</i>	6
1. Options concerning EU legislative, administrative and policy instruments relating to safety at work (considering the adoption of safety equipment as the 'last resort').	6
2. Options concerning EU legislative, administrative and policy instruments relating to safety equipment at work.	7
3. The turban as a safety option for personal protection.	7
<i>Part B: Arguments and evidence.</i>	8
Objectives of this study and requirements of the European Parliament	8
1. Introduction: The current EU legislation on health and safety at work.	8
1.1. DIR 89/656/EEC	9
1.1.1. Safety measures for the head.	10
1.1.2. Safety measures for eyes.	11
1.1.3. Respiratory equipment.	11
1.2. DIR 89/686/EEC, and the harmonised European standards related to PPE.	11
1.2.1. Relevant general requirements	11
1.2.2. Head protection.	12
1.2.3. Eye and face protection.	12
1.2.4. Respiratory protection.	12
2. Issues raised by the EU legislation for the Sikh Community.	13
2.1. Restriction on employment for the Sikhs: activities and jobs affected	13
2.2. Numbers of Sikhs maintaining their own religion and culture in EU member states	13
2.3. Religious and social aspects of the wearing of the Holy Turban by the Sikh community	13
3. Key issues in the risk assessment of helmets, Turbans and alternative headwear	14
4. Comparison with similar legislation and experience in the UK and other countries	14
4.1. UK legislation dealing with the issue of employers liability for Sikh workers	14
4.1.1. The 1989 Employment Act and the exemption for Sikh people from requirements to wear protective headgear on construction areas	14
4.1.2. The 1998 publication "Head protection for Sikhs wearing turbans: guidance for employers"	16
4.2. Previous cases of exemptions from wearing steel helmets in the UK	16
4.2.1. The exemption from the wearing of the helmet for Sikh people in the military services	17
4.2.2. Religious Exemption Act 1976 for Motor Cycles Crash Helmets	17
4.2.3. Protective Headgear for Young Riders regulations 1992, reg. 3(1) and 3(2)	17
4.3. Previous sentences about Sikhs failing to wear a hard hat at work	17
4.4. Evidence for similar legislation and experiences in Canada.	18
4.5. Evidence for similar legislation and experiences in other EU member states.	18
4.6. Evidence for similar legislation and experiences in India.	18
5. Relevant human rights law.	18
5.1. Relevant parts of the UN Universal Declaration of Human rights	18
5.2. Relevant parts of the European Convention of Human Rights	19
<i>Part C: Technical File.</i>	21
1. Technical evaluation of the protective capabilities of Turbans	21
1.1. The Turban material	21
1.2. Type of Turban mainly worn by Sikhs in EU and industrial safety helmet	21
1.3. Test procedure	21
2. Comparison of protective capabilities of Turbans, on front, top, back and bunching of the head, with bump caps and hard hat	22
<i>Annex: Documentation and Bibliography</i>	23

## Abstract

This report investigates whether there is a conflict between European harmonised legislation covering personal protective equipment at work and the freedom of orthodox Sikhs to practise their religious customs, in particular to wear uncut hair and beards, a comb in the hair knot on top of the head and a Turban for male Sikhs. We found evidence for such a conflict in the UK, where the implementation in national law of the relevant EU directives (DIR 89/656/EEC and 89/686/EEC) resulted in a reversal of a trend in progressive incorporation of a religious exemption from the obligation to wear protective headwear. The conflict appears to be mainly due to the national legislation. The relevant European legislation only prescribes minimum requirements. If the Turban is to be considered as an alternative for bump caps, this may be hampered by the wording of the definition of personal protective equipment in DIR 89/656/EEC, that it has to be **designed** as such. Several options are presented for EU legislation, administration and policy, concerning safety at work in general and personal protective equipment in particular. We also present options for considering the Turban as an alternative form of head protection.

## Executive Summary

The British Sikh Federation has appealed to the European Parliament's Committee on Petitions, asking for a modification of DIR 89/656/EEC, because they believe this text limits access for Sikhs to the labour market in sectors where they are not allowed to wear their Turban (petition no. 1180/1995).

The EP Committee on General Affairs stated the project objectives as follows.

*"The question [is] ... the wearing of personal protective equipment (PPE) for the head and whether alternatives may be safely used. ... In particular, the study will be focused on problems connected with the Sikh community and will explain how and when the wearing of the holy turban fit in with the legislative requirements of the directive 89/656/EEC about Personal Protective Equipment at Work. There will be also an identification of the areas where a safety helmet is required, and of the sectors where Personal Protective Equipment for head is satisfactory."*

One case has been found where a Sikh in the UK lost his job after refusing to wear a safety helmet at work. An industrial tribunal approved this dismissal. The British Sikh Federation gives some further examples of jobs and activities they believe may be affected, mainly in heavy industries, and outside the UK also on construction sites.

The applicable EU directives are:

- DIR 89/391/EEC, on the introduction of measures to encourage improvements in the safety and health of workers at work.
- DIR 89/656/EEC, on the minimum health and safety requirements for the use by workers of personal protective equipment at the workplace.
- DIR 89/686/EEC, on the approximation of the laws of the Member States relating to personal protective equipment.

The employer has to assess the risk and select appropriate protective measures in consultation with the workers. Personal protective equipment is considered a last resort, only if collective measures are not possible. The risk assessment and selection of measures should be regularly updated.

These directives only cover protection of workers at work, not the health of customers (as in catering or hospitals) or the quality of products (as in clean rooms). In such cases headwear may be used to prevent contamination by loose hairs or skin particles. The Turban may have the same effect.

As in all EU legislation the subsidiarity principle is applied. The EU directives only specify (non-quantified) minimum requirements. The European standardisation bodies (CEN and CENELEC), and their national members, are responsible for developing and ratifying harmonised European standards, according to the new approach directive of 1985. These standards are explicitly non-mandatory. The only part of DIR 89/656/EEC which may imply a possible exclusion of Turbans as a replacement of bump caps is that personal protective equipment should be explicitly designed as such.

The EU Member States are responsible for laying down binding requirements in their national law, in agreement with the minimum requirements of the relevant EU directives. It is not stated anywhere that legal exemptions for certain groups are not allowed. In fact, the Member States have to establish general rules when personal protective equipment is necessary. These

rules may cover "unusual or unforeseen circumstances" (DIR 89/391/EEC, art 5(4)). Member States might include a religious exemption in these rules.

In the UK, Turban wearing Sikhs are legally exempted from the obligation to wear head protection at work only on construction sites. Turbans are also allowed in other workplaces where workers have to wear a bump cap. In case of an accident, the employer is only liable to pay compensation for injuries the Sikh would have sustained if he was wearing a helmet. The employer only has to insure the worker for this latter risk.

The exemption for Turban wearing Sikhs in the UK from the obligation to wear a safety helmet also implies an exemption of the Race Relations Act. This exemption can not be considered discriminatory for others.

In other EU member states no problems involving Sikhs appear to have been reported to date. There no exemption is made on religious grounds. This may become a problem when greater mobility of labour in the internal market is achieved.

About 600,000 Sikhs live in the UK at present. Smaller numbers of Sikhs live in other EU countries. World-wide there are about 16-20 million Sikhs, of whom 14 million live in the Punjab in India. Sikh religious custom prescribes a. o. uncut hair and beards, wearing a comb in a knot of the hair, and related to this, wearing a Turban for male Sikhs. In the Punjab, the majority of Sikhs wears uncut hair and men also natural beards and a Turban. In western countries this is probably a minority, but statistics are not available. Legal and social circumstances are here less favourable. UK law has progressively become more favourable to wearing Turbans and uncut hair, since the 1960s.

International Human Rights law, including the Universal Declaration of Human Rights and the European Convention of Human Rights aim to achieve equal treatment of all people, and a. o. freedom of religion and freedom to manifest one's religion. These freedoms may be limited by law if this is in the interest of public safety, for the protection of public order, health or morals, or for the protection of rights and freedoms of others.

To conclude, the relevant European legislation as such does not preclude the wearing of the Turban at work, even where head protection is prescribed. Only the national legislation in the Member States is binding. There may be a problem if the Turban is to be considered as a bump cap in accordance with DIR 89/656/EEC. There are some policy options at EU level, as outlined in the options brief.

## **Part A: Options for EU policy for consideration by the European Parliament.**

A problem has been put upon the table of the European Parliament through the petition of the British Sikh Federation. Hard-won rights for a religious exemption to laws intended to protect the safety of workers may have been minimised by the implementation in member states law of EU directives. The intention of these directives was to harmonise existing legislation in the EU, and to improve the protection of workers. The directives explicitly make room for worker participation in the choice of protective measures.

In practice, the directives, but more importantly their implementation in national law may lead to the exclusion of orthodox Sikhs from work they have been doing for years, may hamper the career perspectives of young orthodox Sikhs, and may put UK companies with Sikh employees at a disadvantage when tendering for work in other EU countries.

The EU directives on personal protective equipment at work only deal with health and safety of **workers**. Naturally, in many industrial and other working environments special clothing including headwear is worn to protect the product or the customer.

The quality of the product is protected in clean working environments in electronics and pharmaceutical industries and research laboratories, through special uniforms including covers over the hair. The intention is to avoid contamination of the product by loose hairs and skin particles. The Turban may well have the desired effect, since it covers the hair. No evidence is available concerning exclusion of Turban-wearing Sikhs from work in such clean rooms.

The customer is protected for instance in the catering sector and in hospitals. Again, the intention is to avoid contamination of food or patients, which may also be achieved through a Turban. No evidence is available that Turban wearing Sikhs are excluded from work in the catering sector or hospitals.

Even though hard evidence is not available, it seems likely that the extra risks in the form of deaths and injuries of Turban wearing Sikhs and their co-workers through industrial accidents, if Turban-wearing Sikhs were granted a general exemption from the obligation to wear head protection, would be minimal. However, the European Parliament could decide that such a general measure is not necessary, because the existing European and national legislation contains sufficient room for improvements of the practical equality of orthodox Sikhs. Below, a number of options at EU level are outlined.

### 1. Options concerning EU legislative, administrative and policy instruments relating to safety at work (considering the adoption of safety equipment as the 'last resort')

There is no need for new instruments for general policy relating to safety at work. The existing legislation at EU and member states level appears to be sufficiently clear about the fact that personal protective equipment should be the last resort. Also, employers are expected to update their risk assessment regularly and to adapt the measures in the light of changing circumstances including technological progress. Finally, worker participation is clearly incorporated.

The Health and Safety at Work agencies in the member states are already installed and distribute information on the requirements to employers.

## 2. Options concerning EU legislative, administrative and policy instruments relating to safety equipment at work

The EP could propose an amendment to directive 89/656/EEC to include a religious exemption for Turban-wearing Sikhs from the obligation to wear head protection, following the example for the UK construction sector in the Employment Act 1989 (c.38), sections 11 and 12. This is expected to preclude possible future disadvantages of Sikhs living and working in the UK when their employer bids for a contract in another EU member state. However, such an amendment would again be merely a minimum requirement, leaving it up to the member states authorities to implement it in national legislation.

The EP could propose to the European Commission to fund the writing and distribution of a leaflet in all the languages of the EU on head protection for Sikhs wearing Turbans, following the example of the one published by the UK Health and Safety Executive (1998), but including the situation in all member states. Such a project should be done together with Sikh self-organisations. If the EP would decide to propose an amendment to include religious exemption, it is advisable to postpone the writing of such a leaflet until after the incorporation of the exemption.

The EP could bring the petition of the British Sikh Federation to the attention of Member States authorities, requesting them to study the possibility of a religious exemption from the requirement to wear protective headwear at work.

## 3. The Turban as a safety option for personal protection

There is evidence, but not quantified, that Turbans could in principle be considered equivalent to bump caps (Mr. Hill, HSE, UK, cited in the annex below). A legal problem which may prevent the consideration of Turbans as personal protective equipment equivalent to bump caps is the phrasing of DIR 89/656/EEC, article 2 (1): "... *Personal Protective Equipment shall mean all equipment **designed** to be worn or held by the worker to protect him against one or more hazards ...*"

A Turban is an essential part of the religious dress of Sikhs, and hence not explicitly designed as personal protective equipment. The EP could:

- a) propose an amendment to this article to include not explicitly designed equipment which complies with the relevant standards;
- b) propose to the European standards organisations (CEN and CENELEC) to define a standard for a certified Turban, which complies with the existing standard for bump caps;
- c) propose to these standards organisations in collaboration with Sikh organisations to ensure that tests are carried out to establish the protective properties of different types of Turbans (including a double Turban according to the specifications given by the British Sikh Federation, see the technical annex);
- d) propose to these standards organisations in collaboration with Sikh organisations to test eye and face protection, respirators and ear muffs on their compatibility with long natural beards and/or a Turban.

## **Part B: Arguments and evidence.**

### Objectives of this study and requirements of the European Parliament

The British Sikh Federation has appealed to the European Parliament's Committee on Petitions, asking for a modification of DIR 89/656/EEC, because they believe this text limits access for Sikhs to the labour market in sectors where they are not allowed to wear their Turban (petition no. 1180/1995).

The EP Committee on General Affairs stated the project objectives as follows.

*"The question of the wearing of personal protective equipment (PPE) for the head and whether alternatives may be safely used has been the subject of a significant amount of research. At issue is the safety of the head and eyes, and the possible use of respiratory equipment in certain circumstances, as well as other matters. The question has arisen in connection with a variety of occupations and work environments, including the construction industry and steel industry, but also professional situations such as the architect required to wear a helmet on a visit to a building site. In particular, the study will be focused on problems connected with the Sikh community and will explain how and when the wearing of the holy turban fit in with the legislative requirements of the directive 89/656/EEC about Personal Protective Equipment at Work. There will be also an identification of the areas where a safety helmet is required, and of the sectors where Personal Protective Equipment for head is satisfactory."*

The contractor attended a meeting of the EP Committee on Petitions on 26 May 1999, where members present stressed the following key issues.

This topic is very important, since it affects a group of persons living in the EU. EU directives and religious customs should be compatible. The legislation is intended to stop employers exploiting workers. There is a risk that ignorant workers fall victim to a religious exemption. If an exemption would be granted to Sikhs, the wording would have to be careful to avoid possible positive discrimination, giving their employer a competitive advantage. There were some questions concerning insurance of employers' liability and safety of others (including clients and the product). There was some disagreement concerning the usefulness of a possible standardised Turban.

After submitting the final report the contractor received some comments by the British Sikh Federation on the Interim report. I have included some minor factual corrections based on evidence which was not available to me earlier. I do not consider it my task to include the opinions of the BSF on the quality of other sources used for this report. The main conclusions and options presented here are not changed.

#### 1. Introduction: The current EU legislation on health and safety at work.

The current EU legislation on "health and safety at work" comprises two directives which are relevant to personal protective equipment. Both were published in the official journal in 1989. Here, we describe the contents of both directives, emphasising safety measures for head and eyes and respiratory equipment. Both directives are a specification of a framework directive: DIR 89/391/EEC, of 12 June 1989, on the introduction of measures to encourage improvements in the safety and health of workers at work.

This framework directive is intended to harmonise and improve national legislative systems covering safety and health at the work place. In the preamble, the Council memorises that the incidence of accidents at work and occupational diseases is still too high (in 1989).

In 1999, the International Labour Organisation (ILO) has just published a report estimating over 1 million work-related fatalities each year. However, most accidents occur in developing countries, or involve hazardous substances (the latter is about one quarter).

*"Industrialised countries have seen a clear decrease of serious injuries as a result of structural changes in the nature of work and real improvements in making the workplace healthier and safer, including improved first aid and emergency care which saves lives in the event of accidents.*

*However the evolving nature of work is generating new occupational hazards, including musculo-skeletal problems, asthmatic and allergic reactions and problems caused by exposure to hazardous and carcinogenic agents, such as asbestos, radiation and chemicals."*<sup>1</sup>

It appears that head injuries are at the moment no great concern in industrialised countries such as EU member states.

The framework directive 89/391/EEC makes the employer responsible for ensuring safety and health of workers in every aspect related to the work. (article 5 (1)) Still, Member States may exclude or limit employers' responsibility, a. o. due to unusual and unforeseeable circumstances, beyond the employers' control. (article 5(4)) One could imagine that such circumstances were to include the presence, day to day or incidental, of a Turban wearing Sikh at a location with a risk requiring head protection. No evidence for relevant jurisdiction is available.

The framework directive also describes consultation and participation of workers, in article 11:

*"1. Employers shall consult workers and/or their representatives and allow them to take part in discussions on all questions relating to safety and health at work.*

*This presupposes:*

- *the consultation of workers,*
- *the right of workers and/or their representatives to make proposals,*
- *balanced participation in accordance with national laws and/or practices.*

...

*6. Workers and/or their representatives are entitled to appeal, in accordance with national law and/or practice, to the authority responsible for safety and health protection at work if they consider that the measures taken and the means employed by the employer are inadequate for the purposes of ensuring safety and health at work."*

### *1.1. DIR 89/656/EEC*<sup>ii</sup>

Council directive 89/656/EEC was adopted on 30 November 1989. It treats the minimum health and safety requirements for the use by workers of personal protective equipment at the workplace. This directive constitutes a step towards the achievement of the social dimension of the internal market.

Article 2, paragraph 1 gives the definition of personal protective equipment:

*"For the purpose of this Directive, personal protective equipment shall mean all equipment designed to be worn or held by the worker to protect him against one or more hazards likely to endanger his safety and health at work, and any addition or accessory designed to meet this objective".*

Several types of equipment and jobs are excluded, but these are not relevant to religious minorities or specific for headgear.

Collective means of protection shall be accorded priority over individual protective equipment. Article 3 states the general rule:

*"Personal protective equipment shall be used when the risks cannot be avoided or sufficiently limited by technical means of collective protection or by measures, methods or procedures of work organisation".*

In principle, the employer is the one responsible for providing safety equipment and for taking safety measures. He also has to assess the personal protective equipment before choosing it.

According to article 5, paragraph 1, this assessment shall involve:

*"...(a) an analysis and assessment of risks which cannot be avoided by other means;  
(b) the definition of the characteristics which personal protective equipment must have in order to be effective against the risks referred to in (a), taking into account any risks which this equipment itself may create;  
© comparison of the characteristics of the personal protective equipment available with the characteristics referred to in (b)."*

However, article 6, paragraph 1 states that the Member States have to establish general rules:

*"...for the use of personal protective equipment and/ or rules covering cases and situations where the employer must provide the personal protective equipment... These rules shall indicate in particular the circumstances or the risk situations in which, without prejudice to the priority to be given to collective means of protection, the use of personal protective equipment is necessary".*

They have to consult employers' and workers' organisations on these rules.

Annexes I, II and III of the directive constitute a guide for the Member States for establishing such rules. Annex I gives a non-quantified table of risks. Annex II gives a non-exhaustive guide list of items of personal protective equipment. Annex III gives a non-exhaustive guide list of activities and sectors of activity which may require the provision of personal protective equipment.

#### *1.1.1. Safety measures for the head.*

Some items of personal protective equipment are explicitly mentioned for head protection (annex II). This list is non-exhaustive. It comprises:

- *"Protective helmets for use in industry (mines, building sites, other industrial uses).*
- *Scalp protection (caps, bonnets, hairnets - with or without eye shade).*
- *Protective headgear (bonnets, caps, sou'westers, etc. in fabric, fabric with proofing, etc.)."*

Annex III lists activities which may require the provision of personal protective equipment. This list is non-exhaustive. Under head protection it only specifies activities requiring **protective helmets**. These include building work, work on steel bridges, steel building constructions, masts, towers, steel hydraulic structures, blast furnaces, steel works and rolling mills, large containers, large pipelines, boiler plants and power stations. Work in pits, trenches, shafts and tunnels. Earth and rock works. Work in underground workings, quarries, open diggings, coal stock removal. Work with bolt-driving tools, blasting work. Work in the vicinity of lifts, lifting gear, cranes and conveyors. Work with blast furnaces, direct reduction

plants, steelworks, rolling mills, metal works, forging, drop forging and casting. Work with industrial furnaces, containers, machinery, silos, bunkers and pipelines.

#### *1.1.2. Safety measures for eyes.*

Annex III paragraph 3 specifies a non-exhaustive list of activities where protective goggles, face shields or screens may be required to protect eyes or face. These comprise work with substances which are either hot or may damage eyes or face when accidentally hitting them.

#### *1.1.3. Respiratory equipment.*

Annex III paragraph 4 specifies a non-exhaustive list where respirators and breathing apparatus may be required. This is in general in the vicinity of toxic gases, dust, blast furnaces or sewage.

### *1.2. DIR 89/686/EEC<sup>iii</sup>*

Council Directive 89/686/EEC was adopted on 21 December 1989. It treats the approximation of the laws of the Member States relating to personal protective equipment. This harmonisation is necessary for establishing the internal market.

The Council observes in the pre-amble to the directive that the national provisions relating to safety at work make the use of personal protective equipment compulsory. Also, employers are already obliged to supply their staff with personal protective equipment where there are no adequate public protection measures. The harmonisation intended in this directive is necessary to ensure the free movement of personal protective equipment products inside the European Union.

The directive defines only the basic requirements and prescribes the setting of European standards and procedures to ensure conformity with those standards of individual products. The standards themselves have to be drawn up by private bodies and must retain the status of non-mandatory texts. The Council authorises the European Committee for Standardisation (CEN) and The European Committee for Electro-technical Standardisation (CENELEC) to adopt harmonised standards.

The definition of personal protective equipment in this directive is similar to the one in DIR 89/656/EEC above, but more specific concerning the accessories and additions. The basic health and safety requirements which the personal protective equipment must satisfy according to article 3, are laid down in Annex II. Here, we summarise the relevant requirements for head, eye and face, and respiratory protection.

#### *1.2.1. Relevant general requirements*

The general requirements applicable to all personal protective equipment (PPE) do not quantify the level of risks against which they have to protect.

*"PPE must provide adequate protection against all risks encountered". (Annex II, article 1)*

*"PPE must be so designed and manufactured that in the foreseeable conditions of use for which it is intended the user can perform the risk-related activity normally whilst enjoying appropriate protection of the highest possible level." (Annex II, article 1.1.1.)*

*"The optimum level of protection to be taken into account in the design is that beyond which the constraints imposed by the wearing of the PPE would prevent its effective use during the period of exposure to the risk or normal performance of the activity." (Annex II, article 1.1.2.1.)*

Personal protective equipment which may be caught up during use, as may happen to the Turban material, is also regulated in annex II, article 2.5:

*"Where the foreseeable conditions of use include in particular the risk of the PPE being caught up by a moving object thereby creating a danger for the user, the PPE must possess an appropriate resistance threshold above which a constituent part will break and eliminate the danger".*

#### 1.2.2. Head protection

Head protection is not explicitly mentioned, but annex II, article 3.1 does describe protection against impacts by falling or projecting objects and collision of parts of the body with an obstacle. This is again not quantified:

*"Suitable PPE for this type of risk must be sufficiently shock absorbent to prevent injury resulting, in particular, from the crushing or penetration of the protected part, at least up to an impact-energy level above which the excessive dimensions or mass of the absorbing device would preclude effective use of the PPE for the foreseeable period of wear."*

Also, protection against physical injury is described, not quantified, in annex II, article 3.3:

*"PPE constituent materials and other components designed to protect all or part of the body against superficial injury caused by machinery, such as abrasion, perforation, cuts or bites, must be so chosen or designed and incorporated as to ensure that these PPE classes provide sufficient resistance to abrasion, perforation and gashing ... under the foreseeable conditions of use".*

#### 1.2.3. Eye and face protection

The additional requirements common to personal protective equipment for the face, eyes and respiratory tracts are not relevant for wearers of a Turban, except that:

*"...any restriction of the user's field of vision or sight by PPE for the face, eyes or respiratory tract must be minimised..."* (Annex II, article 2.3)

#### 1.2.4. Respiratory protection.

The additional requirements for respiratory protection are described in annex II, article 3.10.1. This is not specific for bearded or Turban wearing persons, but does not exclude these people as users either:

*"...The constituent materials and other components of these PPE classes must be so chosen or designed and incorporated as to ensure appropriate user respiration and respiratory hygiene for the period of wear concerned under the foreseeable conditions of use.*

*The leak-tightness of the face-piece and the pressure drop on inspiration and, in the case of the filtering devices, purification capacity must be such as to keep contaminant penetration from a polluted atmosphere low enough not to be prejudicial to the health or hygiene of the user ..."*

The quantified standards for personal protective equipment for head, eyes and face and respiration are harmonised by the competent European standardisation bodies and their national members in the EU Member States. According to Mr. Ennio Campanella of the Italian Safety at Work Institute the principle European standards where problems may occur for Sikhs wearing Turbans are:

- *"Full face masks (...EN 136);*
- *Power assisted particle filtering devices incorporating full face masks (EN 147);*
- *Industrial Safety helmets (EN 397);*

- *Powered particle filtering device incorporating helmets (EN 146)*
- *... Ear muffs (EN 352-1)."*<sup>iv</sup>

These standards are non-mandatory, according to directive 89/686/EEC. National laws may be more restrictive in this respect. The relevant UK national legislation is dealt with in chapter 4.

## 2. Issues raised by the EU legislation for the Sikh Community.

### 2.1. *Restriction on employment for the Sikhs: activities and jobs affected*

See testimony of the British Sikh Federation for the European Parliament Committee on Petitions, 13 October 1998:

- Foundries and factories: blast furnaces and steelworks;
- Work in the vicinity of hoists, lifting plants, cranes and conveyors;
- Railway shunting work;
- Transport activities involving a risk of falling materials, such as loading and unloading trucks;
- Painting etc. when working from scaffolding, including for a Gurdwara (Sikh place of worship).
- Outside the UK: also construction works.
- Many other professionals may be prevented from visiting sites where head protection is compulsory. However, this does not necessarily mean that they will suffer set-backs in their careers or lose their job. The BSF argued that: *"Sikhs do suffer set-backs in their careers or lose their jobs, e.g. Surindera Singh Dhanjal from Stoke-on-Trent, who had previously worked for many years for British Steel, and the BSF General Secretary himself was prevented in May 1999 from showing around visitors for a new contract on a major power station (a power station that he had helped to build during the previous 9 years of construction and commissioning)."* (commenting on the interim report on this study, 7 July 1999) They did not mention details on the consequences for the careers of these people.

### 2.2. *Numbers of Sikhs maintaining their own religion and culture in EU member states*

According to Hew McLeod, author of a book on Sikhism, there are world-wide about 16 million Sikhs, 14 million living in the Punjab in India.<sup>v</sup> Mr Sandeep Singh Brar estimates the total number of Sikhs at over 20 million.<sup>vi</sup> According to Mark Lawson (BBC, 1998) there are at present about 600,000 Sikhs in the UK.<sup>vii</sup> The British Government Office for National Statistics estimated the number of Indian Sikhs in the UK at about 430,000 in 1991,<sup>viii</sup> but the BSF argued that many Sikhs in the UK consider themselves UK citizens, so that the total number of Sikhs in the UK is probably higher.<sup>ix</sup> In 1987, according to McLeod, the number of Sikhs in the UK was estimated to be 269,600. The numbers of Sikhs in the USA and Canada are estimated to be about 175,000 in each country. Smaller numbers of Sikhs live in other countries.<sup>x</sup> The majority of Sikhs living in western countries cut their hair, and don't wear uncut hair and beards and a Turban.<sup>xi</sup> In 1987, *"The 40,000 British Sikhs employed in the construction industry [were] preparing to fight against plans ... to make the wearing of safety helmets on building sites compulsory"*.<sup>xii</sup> In the Punjab, where most Sikhs live, the majority don't cut their hair and beard, and do wear the Turban. In western countries legal regulations and work practices do not favour and even discourage the wearing of the Turban and long hair and beards.

### *2.3. Religious and social aspects of the wearing of the Holy Turban by the Sikh community*

The wearing of the Turban is obligatory for practising Sikh men. All practising Sikhs, men and women, are forbidden to cut their hair. And men are not allowed to shave or trim their beard. Women have to wear a scarf or Turban. These obligations are explained in a notification from the Shiromani Gurdwara Parbandhak Committee. This committee is a statutory body, constituted under an act of the Punjab legislature passed on 9 July 1925. Its duties include the propagation of the Sikh faith.<sup>xiii</sup>

The religious authority on which these rules are based are the writings of the 10 Gurus, the founding fathers of the Sikh faith. These men lived and subsequently led the Sikh community between 1469 and 1708. The last Guru transferred the religious authority to the scriptures and the community of Sikhs. He also installed the Khalsa, the order of Sikhs who promise to obey the religious and social rules of Sikhism, after an initiation ritual. The Sikhs of the Khalsa are obliged to wear the five K's: uncut hair, a wrist ring, a short sword, a wooden comb on the topknot of their hair and breeches. The Turban is strictly speaking not a part of the five K's, but it is definitely a visible and distinguishing part of Sikh religion, and a tidy and convenient way to control uncut hair. Not all Sikhs are members of the Khalsa, but many Sikhs who are not still observe the five K's and wear uncut hair, beards and a Turban.<sup>xiv</sup>

### 3. Key issues in the risk assessment of helmets, Turbans and alternative headwear.

The employer is responsible for assessing the risks at the workplace. He has to take measures to remove the risk or to supply adequate safety measures at source. Only when and where it is not practically possible to combat the risks in this way, should he supply personal protective equipment. The employer has to assess both the risks and the available personal protective equipment. A sensitive point regarding Sikhs, which may affect their equal rights, is that employers may not be aware of the fact that the Turban may count as a PPE in case bump caps are required. The current harmonised European standards specifications do not cover for Turbans. The only document advertising the Turban as an allowed alternative is the leaflet "Head Protection for Sikhs wearing Turbans" from the Health and Safety Executive in the UK (1998)

### 4. Comparison with similar legislation and experience in the UK and other countries.

#### *4.1. UK legislation dealing with the issue of employers liability for Sikh workers*

In the UK, the wearing of personal protective equipment at work had been regulated through the Health and Safety at Work Act 1974. This law did not mention Sikhs or religious exemptions. The wearing of hard hats on construction sites was only explicitly obligatory since 1989. Then, Sikhs wearing Turbans were legally exempted from wearing protective headgear on construction sites.

The first peace time exemption for Sikhs wearing Turbans was made in 1966, for bus drivers in Manchester. This was the result of a 7 year campaign led by Sikh community leader Gyani Sunder Singh Sagar.<sup>xv</sup>

#### *4.1.1. The 1989 Employment Act and the exemption for Sikh people from requirements to wear protective headgear on construction areas*

The Employment Act 1989 (c.38) is

*"an act [a. o.] ... to repeal or amend prohibitions or requirements relating to the employment of young persons and other categories of employees; to make other amendments of the law relating to employment and training..." (Long Title of the Act)*  
xvi

Two sections of the Act are relevant to Sikhs, 11 and 12.<sup>xvii</sup>

### **S. 11. Exemption of Sikhs from requirements as to wearing of safety helmets on construction sites.**

- (1) *"Any requirement to wear a safety helmet which (apart from this section) would, by virtue of any statutory provision or rule of law, be imposed on a Sikh who is on a construction site shall not apply to him at any time when he is wearing a Turban.*
- (2) *Accordingly, where -*
  - (a) *a Sikh who is on a construction site is for the time being wearing a turban, and*
  - (b) *(apart from this section) any associated requirement would, by virtue of any statutory provision or rule of law, be imposed -*
    - (i) *on the Sikh, or*
    - (ii) *on any other person,**in connection with the wearing by the Sikh of a safety helmet, that requirement shall not apply to the Sikh or (as the case may be) to that other person.*
- (3) *In subsection (2) "associated requirement" means any requirement (other than one falling in subsection (1)) which is related to or connected with the wearing, provision or maintenance of safety helmets.*

### **Insurance**

- (4) *It is hereby declared that, where a person does not comply with any requirement, being a requirement which for the time being does not apply to him by virtue of subsections 1 or 2 -*
  - (a) *he shall not be liable in tort to any person in respect of any injury, loss or damage caused by his failure to comply with that requirement.*

...
- (5) *If a Sikh who is on a construction site -*
  - (a) *does not comply with any requirement to wear a safety helmet, being a requirement which for the time being does not apply to him by virtue of subsection (1), and*
  - (b) *in consequence of any act or omission of some other person sustains any injury, loss or damage which is to any extent attributable to the fact that he is not wearing a safety helmet in compliance with the requirements, that other person shall, if liable to the Sikh in tort (...) be so liable only to the extent that injury, loss or damage would have been sustained by the Sikh even if he had been wearing a safety helmet in compliance with the requirements.*
- (6) *Where -*
  - (a) *the act or omission referred to in subsection (5) causes the death of the Sikh, and*
  - (b) *the Sikh would have sustained some injury (other than loss of life) in consequence of the act or omission even if he had been wearing a safety helmet in compliance with the requirements in question, the amount of any damages, which, by virtue of that subsection are recoverable in tort (...) in respect of that injury shall not exceed the amount of any damages*

*which would (apart from that subsection) be so recoverable in respect of the Sikh's death."*

Employers in the UK are legally obliged to insure their employees against accident risks. Such insurance is intended to cover the employers' liability to pay compensation for injuries. The exemption for turban wearing Sikhs from the obligation to wear a safety helmet has the following implications for employers' liability:

*"If a turban-wearing Sikh is injured on a construction site, his employer is only liable to pay compensation for any injuries which, even if the Sikh worker had been wearing a safety helmet, he would have sustained (Section 11, Employment Act 1989)".<sup>xviii</sup>*

According to the British Sikh Federation in their appeal to the EP Committee of Petitions, *"Sikhs are willing to accept any risk there may be to their heads in all employment areas"*.

## **S. 12. Protection of Sikhs from racial discrimination in connection with requirements as to wearing of safety helmets.**

(1) *"Where -*

*(a) any person applies to a Sikh any requirement or condition relating to the wearing by him of a safety helmet while he is on a construction site, and*

*(b) at the time when he so applies the requirement or condition that person has no reasonable grounds for believing that the Sikh would not wear a turban at all times when on such a site,*

*then, for the purpose of determining whether the application of the requirement or condition to the Sikh constitutes an act of discrimination falling within section 1 (1) (b) of the Race relations act 1976 (indirect racial discrimination) the requirement or condition shall be taken to be one which cannot be shown to be justifiable as mentioned in sub-paragraph (ii) of that provision.*

*(2) any special treatment afforded to a Sikh in consequence of section (11 (1) or (2) above shall not be regarded for the purposes of the race relations act 1976 as giving rise, in relation to any other person, to any discrimination falling within section 1 of that act".*

In 1992, the European Directives 89/656/EEC and 89/686/EEC were implemented in UK law in the form of several regulations. These do not include exemptions for Sikhs. At the same time, they do not cover the area for which the Construction (Head protection) regulations 1989 were already valid. Therefore, only on construction sites are Sikhs wearing Turbans legally exempted from the obligation to wear head protection at work.

### *4.1.2. The 1998 publication "Head protection for Sikhs wearing turbans: guidance for employers"*

The Health and Safety Executive, in collaboration with the British Sikh Federation, has published a leaflet for employers, explaining the legal requirements governing personal protective equipment at work in general, and how these relate to Sikh workers in particular.

The advice entails that the employer is legally required to assess the risks at the workplace, and to take measures to ensure a safe workplace and safe working practices. These measures are preferably measures to remove the risk at source or to control it effectively.

*"Employers who decide to protect their employees from head injury by using only head protection will need to show that it was not reasonably practicable to remove or control the risk by other means". (p 4)*

The risk assessment has to be reviewed regularly.

Employers can let Sikhs wearing Turbans work in designated safe parts of a workplace. Also, in some cases the Turban may offer adequate protection against injury. The employer is advised that:

*"Your risk assessment may indicate, in a number of limited circumstances, that turbans offer adequate protection against injury to the head from striking against objects, and where bump caps might otherwise be needed. However, the turban would not offer satisfactory protection where there are risks from falling objects and standard industrial safety helmets are normally provided". (p 5)*

The normative basis for this advice is not clear.

The leaflet notes the exemption of the obligation to wear a helmet for Sikhs wearing Turbans on construction sites.

#### *4.2. Other cases of exemptions from wearing head protection in the UK*

Sikhs are not only legally exempt from wearing head protection at work, but also in other aspects of social life, in particular serving in the armed forces, riding a motor cycle or as a child riding a horse.

##### *4.2.1. The exemption from the wearing of the helmet for Sikh people in the military services*

The British Sikh Federation presents some evidence on exemptions from the wearing of the helmet during the two world wars in their testimony to the European Parliament's Committee on Petitions, 13 October 1998. Sikhs fought in the allied forces, only wearing their Turban and were praised for their courage.

At present (since October 1997), the UK army maintains an equal opportunities policy, to encourage participation of women and ethnic minorities in the armed forces. This policy includes a dress code which also treats specific rights for Sikhs:

*"In the Army, Sikhs can wear turbans and are also permitted to wear the 5 K's: Kara (steel bangle), Kesh (uncut hair), Kanga (small comb), Kaccha (special design knee length underpants) and Kirpan (small sword). However, under certain operational circumstances, during training for operations and in some specialisations they will be required to wear operational or protective headgear. Examples are combat helmets and flying helmets. This can be achieved by wearing a patka under the operational headgear. In addition, where there is a high risk of Nuclear, Biological or Chemical (NBC) warfare the wearing of a respirator is vital for survival. To provide an effective seal a smooth facial surface is essential and the beard (part of Kesh) will have to be shaved to the point where an effective seal is achieved. In training, however, although personnel will be required to perform the drills for wearing respirators, they will not be required to shave their beard."* <sup>xix</sup>

##### *4.2.2. Religious Exemption Act 1976 for Motor Cycles Crash Helmets*

The above-mentioned Sikh community leader Gyani Sunder Singh Sagar also led the campaign for the religious exemption act 1976 for motor cycles crash helmets. He even spent some time in jail for it. <sup>xx</sup> "The Motor Cycle Crash Helmet (Religious Exemption) Act 1976 ... amends the Royal Traffic Act 1972 by exempting Turban-wearing followers of the Sikh religion from the requirement to wear a crash-helmet when riding a motor-cycle". <sup>xxi</sup>

##### *4.2.3. Protective Headgear for Young Riders regulations 1992, reg. 3(1) and 3(2)*

The Horses (Protective Headgear for Young Riders) Regulations 1992 gives a prescription of the protective headgear to be worn by young riders (under 14 years) on a Horse. According to the Horses (Protective Headgear for Young Riders) Act 1990 it is an offence to let a child under 14 ride a horse on a road without protective headgear. The 1992 regulations disapply the offence in the case of a child who is a follower of the Sikh religion while he is wearing a turban.<sup>xxii</sup>

#### *4.3. Previous sentences about Sikhs failing to wear a hard hat at work*

S.S. Dhanjal v. British Steel General Steels, 16 December 1993 (analysed in Welhengama, 1994) In this case an orthodox Sikh appealed against dismissal by British Steel General Steels on the grounds that he failed to wear a hard hat. The industrial tribunal judged that the applicant was not unfairly dismissed. There was no racial discrimination and the dismissal action was justifiable in accordance with the Race Relations Act 1976 and the Health and Safety at Work Act 1974.<sup>xxiii</sup>

#### *4.4. Evidence for similar legislation and experiences in Canada*

In the case K. S. Bhinder and the Canadian Human Rights Commission v. The Canadian National Railway Company, the appellants appealed to the Supreme Court of Canada in 1985. *"The appellant Bhinder had worked for four years as a maintenance electrician in the respondent's train yard when the respondent announced that all employees at the yard must wear hard hats. The appellant refused because his Sikh religion permitted him to wear only a turban on his head. The respondent informed him that he could not work without the hat and his employment ceased."*<sup>xxiv</sup>

Eventually, the Federal Court decided that the rule to wear a hard hat was a bona fide occupational requirement, to which no exemptions exist.<sup>xxv</sup>

#### *4.5. Evidence for similar legislation and experiences in other EU member states*

In Germany, as in the other EU member states, Directives 89/656/EEC and 89/686/EEC are transposed into national law. Following this, *"the employer is not allowed to employ a worker at a certain workplace where for safety reasons it is necessary to wear PPE, e.g. head protection. There are no exceptions caused by personal or religious reasons"*.<sup>xxvi</sup>

In Belgium, the employer has to select the Personal Protective Equipment following the procedure indicated in DIR 89/656/EEC. He should take into account the persons who are handicapped and the fact that the PPE can be made to fit the wearer. The employees should be enabled to give their opinion on the decision for the PPE to be used. If wearing a Turban would obstruct the effective use of a PPE such as a helmet, ear protection, respiratory equipment or face protection, the employee can not fulfil the task, if he can't stop wearing the Turban for religious reasons. The relevant authority is not informed about any conflicts or problems involving turban-wearing Sikhs.<sup>xxvii</sup>

#### *4.6. Evidence for similar legislation and experiences in India*

In the Punjab, Haryana and Delhi, only Turban-wearing Sikhs are exempted from the obligation to wear a crash helmet on two wheelers. Recently, there have been some protests from groups who wish to exempt also Sikh women wearing only a veil. In Delhi, a process to

amend the law, exempting all women is currently in motion.<sup>xxviii</sup> In Punjab and Haryana, a court has ruled that the only exemption remains male Sikhs wearing a Turban. Opinions, including among leading Sikhs, differ on this issue.<sup>xxix</sup>

## 5. Relevant human rights and racial discrimination law.

Sikhs, as anyone else, enjoy the fundamental human rights. These are stated in international documents like the UN Universal Declaration of Human Rights and the European Convention of Human Rights. The Universal Declaration of Human Rights is very general, and is not directly legally binding. The national governments have to implement legal protection for their citizens and others under their jurisdiction in their national laws. Below, we discuss relevant parts of EU legislation about racial discrimination in employment.

### 5.1. *Relevant parts of the UN Universal Declaration of Human rights*

The General Assembly of the United Nations has adopted the UN Universal Declaration of Human Rights on 10 December, 1948. It is:

*"a common standard of achievement for all peoples and all nations, to the end that every individual and every organ of society, keeping this Declaration constantly in mind, shall strive by teaching and education to promote respect for these rights and freedoms and by progressive measures, national and international, to secure their universal and effective recognition and observance, both among the peoples of Member States themselves and among the peoples of territories under their jurisdiction". (preamble)*

Several articles are relevant to the question of Sikh religious and social rights. These are:

Article 7:

*"All are equal before the law and are entitled without any discrimination to equal protection of the law. All are entitled to equal protection against any discrimination in violation of this Declaration and against any incitement to such discrimination".*

Article 18:

*"Everyone has the right to freedom of thought, conscience and religion; this right includes ... freedom, either alone or in community with others and in public or in private, to manifest his religion or belief in teaching, practice, worship and observance".*

Article 23 (1):

*"Everyone has the right to work, to free choice of employment, to just and favourable conditions of work and to protection against unemployment".*

Article 29 (2):

*"In the exercise of his rights and freedoms, everyone shall be subject only to such limitations as are determined by law solely for the purpose of securing due recognition and respect for the rights and freedoms of others and of meeting the just requirements of morality, public order and the general welfare in a democratic society".*

### 5.2. *Relevant parts of the European Convention of Human Rights*

The European Convention is a treaty between member states of the Council of Europe. These member states have the obligation to secure the rights and freedoms stated in the Convention to everyone within their jurisdiction. (article 1) The European Court of Human Rights has jurisdiction over the interpretation of the convention. Member States as well as individuals can apply to this court.

Article 9 treats freedom of thought, conscience and religion:

*"1. Everyone has the right to freedom of thought, conscience and religion; this right includes ... freedom, either alone or in community with others and in public or private, to manifest his religion or belief, in worship, teaching, practice and observance.*

*2. Freedom to manifest one's religion or beliefs shall be subject only to such limitations as are prescribed by law and are necessary in a democratic society in the interests of public safety, for the protection of public order, health or morals, or for the protection of the rights and freedoms of others".*

Article 14 treats prohibition of discrimination:

*"The enjoyment of the rights and freedoms set forth in this Convention shall be secured without discrimination on any ground such as sex, race, colour, language, religion, political or other opinion, national or social origin, association with a national minority, property, birth or other status."*

In itself, the convention does not say whether or not Sikhs should be exempted from the general legislation governing the wearing of personal protective equipment at work. Strictly speaking, the rules do not discriminate. They treat everyone at work the same. Also, the freedom of religion may be subject to limitations, including for the protection of public health.

## Part C: Technical File.

### 1. Technical evaluation of the protective capabilities of Turbans

This description summarises the results of F.J. Rowland (1987).<sup>xxx</sup> Additional remarks from the British Sikh Federation and McLeod are also included. More technical details are not available.

#### 1.1. The Turban material

The Turban material used for the test by Rowland is a light cotton gauze. The length of the Turban material used in this test is 4.5 metres, and the width 1 metre. He used three different pieces of Turban materials, of different quality but all the same length and width. The results of the tests for all three materials could not be differentiated. Rowland states that these materials were purchased from an Indian supplier in Sheffield, UK, following advice from a member of the Sikh community. He also remarks that other (thicker) materials would also be permitted for a Turban.<sup>xxxi</sup>

#### 1.2. Type of Turban mainly worn by Sikhs in EU and industrial safety helmet

According to Rowland, the most common type of Turban in the UK is the Punjabi style. *"This type has a bunching of material at the back and the front of the head, as do the other styles, but the bunching at the back is sited low on the nape of the neck, and below the rim of an industrial safety helmet"*. (Rowland, 1987, p48)

According to the British Sikh Federation, Rowland and McLeod, Sikhs have to tie their hair in a knot on top of their head.

According to the British Sikh Federation and McLeod, a wooden comb has to be inserted in this top knot. The test by Rowland does not take this into account.

According to McLeod, most Sikhs wear a Turban consisting of one piece of cloth of about 5 metres length, in different colours, characteristic for the particular group. Some Sikhs wear a Keski or under-Turban underneath the Turban. The Keski encases the whole head of hair and is about a quarter in length of the outer Turban.<sup>xxxii</sup> This appears to be in accordance with the specification given by the British Sikh Federation (an under Turban of 2 metres and an outer Turban of 7 metres).

The safety helmet in the test by Rowland passed the requirements of the British standard BS 5240: Specification for general purpose industrial safety helmet (British Standards Institution, 1975).

#### 1.3. Test procedure

A standardised European test method for head protection is currently under approval by the CEN Technical Committee 158. Parts 2 and 3 of this test method are relevant. Part 2 deals with shock absorption and part 3 with resistance to penetration. These methods may be used, although they are not yet ratified. The test should use a headform which is in conformity with standard EN 960:1994 (Headforms for use in the testing of protective helmets.) The test should compare Turbans with industrial safety helmets and bump caps. The Turban should be selected taking into account these specifications:

- outer turban material length to be 7 metres,
  - inner turban material length to be 2 metres,
  - there should be a wooden comb at the base of the knot of hair on top of the head.
- The industrial safety helmets should be in conformity with standard EN 397: 1995, and the bump caps with standard EN 812:1997.

2. Comparison of protective capabilities of Turbans, on front, top, back and bunching of the head, with bump caps and hard hat

Rowland only compared the protective capabilities of a Punjabi Style turban without the comb, with a Hard Hat (BS 5240). He concluded that this type of Turban gave better protection on one point at the front of the head, where the Turban material crosses over (1.4 times), and comparable protection at the back of the head. He notices that he has not compared the helmet with the back bunching, because for the Punjabi style Turban this bunching is below the helmet. An earlier test by Biokinetics and Associates Ltd, Canada (1979) gave more protection at the back of the head in the same area as covered by the helmet, because the Turban they tested was tied differently. The conclusions of this test are that:

*"1) The conventional Sikh turban does not conform to the impact requirements of ... the standard for the industrial protective headwear. 2) The turban offers its maximum protection where the fabric is heavily bunched at the front and back of the head. This region accounts for only a small portion of the head. 3) The regions of least protection provided by the turban are the crown and side, with the exception of the hair knot location. 4) At rear impact locations, the Sikh turban affords more protection than a certified industrial safety cap."* <sup>xxxiii</sup>

Rowland's test shows that the helmet gives far better protection on the top and the sides of the head. Also, the Turban does not comply with the standard BS 5240 on top and sides of the head. The top of the head is only covered with one layer of Turban material.

The double Turban, with a wooden comb in the top-knot, might give different results for the top of the head, since this would be covered with more layers.

The British Sikh Federation cites Mr Hill, Her Majesty's Health and Safety Executive (HSE) Senior Inspector of Factories, who stated *"that in his practical experience a turban affords as much protection as an industrial bump hat (industrial scalp protector)"*. <sup>xxxiv</sup>

## *Annex: Documentation and Bibliography*

### EU legislation, Commission Communications, White Papers etc.

- DIR 89/391/EEC, on "The introduction of measures to encourage improvements in the safety and health of workers at work"
- DIR 89/656/EEC, on "Minimum Health and Safety Requirements for the Use by Workers of Personal Protective Equipment at the Workplace"
- DIR 89/686/EEC, on "Basic Requirements to be Satisfied by Personal Protective Equipment at Work"
- European Commission (DGV/F): Statement to the Committee on Petitions (25 April 1997 and 11 March 1998), quoted in DOC\_PA\CM\353\353617, PE 222.803/rev
- Petition 1180/95: "The Personal Protective Equipment at Work Directive Effecting Employment of European Union Sikh Community"

### UK legislation

- The Management of Health and Safety at Work Regulations 1992, Statutory Instruments no. 2051 of 1992
- The Workplace (Health, Safety and Welfare) Regulations 1992, Statutory Instruments no. 3004 of 1992
- The Personal Protective Equipment at Work Regulations 1992, Statutory Instruments no. 2966 of 1992
- The Health and Safety at Work Act 1974
- Motor Cycles Crash Helmets (Religious Exemption) Act 1976
- Horses (Protective Headgear for Young Riders) Regulations 1992, reg. 3(1) and 3(2)
- The Construction (Head Protection) Regulations 1989, Statutory Instruments no. 2209 of 1989
- The National UK Employment Act 1989, (C38) - section Removal of Restriction and Other Requirements Relating to Employment - articles 11 and 12

### Relevant organisations

- European Agency for Safety and Health at Work, Bilbao, Spain
- European Commission, DGV/F
- Health and Safety Executive, UK (Info Line)
- Bundesministerium für Arbeit und Sozialordnung, Germany
- Ministero della Sanita - Istituto Superiore per la Prevenzione e la Sicurezza del Lavoro - Dip Igiene del Lavoro - Italy
- Federaal Ministerie van Tewerkstelling en Arbeid - Administratie van de Arbeidsveiligheid - Technische Inspectie Administratief Beheer - Belgium
- British Sikh Federation - UK
- Shiromani Gurdwara Parbandhak Committee, Amritsar, India

---

<sup>i</sup> ILO (1999): "ILO Estimates over 1 million work-related fatalities each year, workplace hazards evolving as technologies develop", press release, Monday 12 April 1999, Geneva, Sao Paulo, accessed at: <http://www.ilo.org/public/english/235press/pr/1999/9.htm>

<sup>ii</sup> The text of Directive 89/656/EEC was taken from the EUR-LEX database, accessible through internet at: [http://www.europa.eu.int/eur-lex/en/lif/dat/en\\_389L0656.html](http://www.europa.eu.int/eur-lex/en/lif/dat/en_389L0656.html)

- 
- <sup>iii</sup> The text of Directive 89/686/EEC was taken from the EUR-LEX database, accessible through the internet at [http://www.europa.eu.int/eur-lex/en/lif/dat/en\\_389L0686.html](http://www.europa.eu.int/eur-lex/en/lif/dat/en_389L0686.html)
- <sup>iv</sup> Mr. Ennio Campanella, Ministero della Sanita, Istituto Superiore per la Prevenzione e la Sicurezza del Lavoro, Dip Igiene del Lavoro, in a fax letter to the STOA unit of the European Parliament, 2 February 1999.
- <sup>v</sup> Hew McLeod (1997): "Sikhism", Penguin Books, London
- <sup>vi</sup> Mr. Sandeep Singh Brar (1998): "The Sikhism home page: Introduction to Sikhism, <http://www.sikhs.org/summary.htm>
- <sup>vii</sup> Mark Lawson, in Radio Times, 24-30 January 1998
- <sup>viii</sup> British Government Office for Statistics, 1996: Social focus on ethnic minorities.
- <sup>ix</sup> British Sikh Federation, 1999: comments on the interim report of this STOA study.
- <sup>x</sup> Hew McLeod (1997): "Sikhism", Penguin Books, London, p251
- <sup>xi</sup> McLeod, *ibid*, p208
- <sup>xii</sup> "Sikhs building syndrome", in Safety Representative, July 1987, 2, quoted in OSH-ROM: HSE line, [www.open.gov.uk/hsehome.htm/hse/](http://www.open.gov.uk/hsehome.htm/hse/)
- <sup>xiii</sup> "SGPC Notification on Sikh Symbols", by Gurcharan Singh Tohra, president, Shiromani Gurdwara Parbandhak Committee, Amritsar, India, 16 September 1998
- <sup>xiv</sup> McLeod, *ibid*.
- <sup>xv</sup> This information was taken from an in-memoriam for Gyani Sunder Singh Sagar, first published in the Daily Telegraph, Monday 6 January 1997.
- <sup>xvi</sup> Employment Act 1989 (c.38), summary, published by HMSO, on <http://www.hmso.gov.uk/acts/summary/01989038.htm>
- <sup>xvii</sup> The text of these sections is taken from The Public General Acts 1989, part 1: Employment Act 1989 c38, sections 11 and 12, by the Incorporated Council of Law reporting for England and Wales, London, 1989, pp 1851-54
- <sup>xviii</sup> Health and Safety Executive (1998): "Head protection for Sikhs wearing turbans: guidance for employers", p 6.
- <sup>xix</sup> This equal opportunities policy document of the UK armed services was found on the internet: [http://www.army.mod.uk/cgi-bin/netoutcome.exe?redeye\\_url=/army/recruit/equal/main.htm](http://www.army.mod.uk/cgi-bin/netoutcome.exe?redeye_url=/army/recruit/equal/main.htm)
- <sup>xx</sup> This information was taken from an in-memoriam for Gyani Sunder Singh Sagar, first published in the Daily Telegraph, Monday 6 January 1997.
- <sup>xxi</sup> Halsbury's laws of England, 1976 Abr. Para 2165, Butterworth Law Publishers Ltd, London, F.M. Walter and K.H. Mugford (eds.)
- <sup>xxii</sup> Halsbury's Laws of England, 1992 Abr para 349, Butterworth Law Publishers Ltd, London, Melanie Robertson et al (eds)
- <sup>xxiii</sup> Abstract in the OSH-ROM database of the Health and Safety Executive, UK, of Welhengama, G (1994): "Sikhs and industrial tribunals, in New Law Journal, 20 May 1994, vol. 144, no. 6648, pp671-672.
- <sup>xxiv</sup> CCH Canadian Employment Safety & Health Guide, New Developments [95, 039], CCH Canadian Ltd.
- <sup>xxv</sup> CCH Canadian Employment Safety & Health Guide, New Developments [95, 039], CCH Canadian Ltd.
- <sup>xxvi</sup> Dr. W. Müller, Bundesministerium für Arbeit und Sozialordnung, in a fax to STOA, European Parliament, 19 January 1999.
- <sup>xxvii</sup> Ir. W. Imbrechts, general adviser, Federal Ministry of Labour, Administration of Safety at Work, in a letter to STOA, European Parliament, 27 January 1999.
- <sup>xxviii</sup> The Hindustan Times online, [www.hindustantimes.com](http://www.hindustantimes.com), Saturday, 23 January 1999.
- <sup>xxix</sup> The Week, India's No. 1 weekly news magazine, <http://www.the-week.com/98aug09/events3.htm>, 9 August 1998.
- <sup>xxx</sup> Rowland, F. J. (1987): "Comparison of the Impact Protection Properties of Sikh Turbans and Industrial Safety Helmets", in Journal of Occupational Accidents 9 (1987) pp47-57
- <sup>xxxi</sup> Rowland, *Ibid*, p48
- <sup>xxxii</sup> McLeod, *ibid*, p211
- <sup>xxxiii</sup> Abstract from the Canadian Centre for Occupational Health and Safety database: Biokinetics and associates (1979): "Evaluation of the protective capabilities of sikh headwear / submitted to the construction safety association of Ontario
- <sup>xxxiv</sup> in the case of *Kuldip Singh v. British Rail Engineering Ltd* (1983), as cited in the testimony of the British Sikh Federation to the EP Committee on Petitions, 13 October 1998, p11

---

**STOA PROGRAMME**  
**European Parliament**  
**Directorate-General for Research**  
**Directorate A**

**Room SCH 04 A034**  
**Schuman Building**  
**Kirchberg**  
**L-2929 Luxembourg,**  
**Tel (352) 4300.22511;**  
**Fax (352) 4300.22418 or 24167**  
**E-mail: gchambers@europarl.eu.int**

or

**RoomASP 6D46**  
**Altiero Spinelli Building**  
**60, rue Wiertz**  
**B-1047 Brussels,**  
**Tel (32-2) 284.3812**  
**Fax (32-2) 284.49.80 or 9059**  
**E-**  
**mail:tkarapiperis@europarl.eu.int**