

**EXPLANATORY MEMORANDUM TO
THE CONTROLS ON DANGEROUS SUBSTANCES AND PREPARATIONS
(AMENDMENT) REGULATIONS 2007**

2007 No. 1596

1. This explanatory memorandum has been prepared by Department for Environment, Food and Rural Affairs and is laid before Parliament by Command of Her Majesty.

2. Description

2.1 This statutory instrument makes a technical amendment to the controls enacted in 2003 to control the marketing and use of Copper Chrome Arsenic (CCA) wood preservative - an Arsenic compound.

2.2 The technical amendment clarifies the status of wood already in place/use that has been treated with Arsenic compounds, and distinguishes between the first placing on the market and re-use of such wood.

2.3 The technical amendment defines that wood in use within the European Union (EU) treated with CCA compounds prior to September 2007 can be used, reused or placed on the second hand market subject to the conditions laid out in Directive 2006/139/EC.

3. Matters of special interest to the Joint Committee on Statutory Instruments and the Select Committee on Statutory Instruments

3.1 None.

4. Legislative Background

4.1 This instrument implements EU Directive 2006/139/EC which adapts to technical progress Council Directive 76/769/EC relating to the restrictions on the marketing and use of certain dangerous substances and preparations. A transposition note is attached.

This is a Commission Directive and as such not subject to scrutiny clearance.

5. Territorial Extent and Application

5.1 This instrument applies to all of the United Kingdom.

6. European Convention on Human Rights

As the instrument is subject to negative resolution procedure and does not amend primary legislation, no statement is required.

7. Policy background

7.1 Controls on the marketing and use of Arsenic compounds in wood preservative were put in place by Directive 1989/677/EC which in turn were updated and amended by

Directive 2003/2/EC an implemented in the UK through statutory instrument number 3274/2003, which came into effect on 30th June 2004 and then consolidated into SI 2006/3311.

7.2 The rules concerning wood treated with Arsenic compounds in Directive 76/769/EC do not adequately distinguish between the first putting on the market and the reuse of such wood.

7.3 At the request of Finland and Sweden, the Commission put forward a proposal for clarification of the status of wood already in place/use that has been treated with CCA type preservatives and clarification of the position of the placing on the second hand market and re-use of wood previously treated with CCA type wood preservatives. This was supported by all Member States except Germany (which abstained).

7.4 Directive 2006/139/EC was adopted. It clarifies that wood treated with Arsenic compounds and already in place/use may remain so until the end of its service life and wood treated with CCA and already in use in the Community maybe placed on the second hand market subject to the conditions outlined in the Annex of the Directive.

7.5 Consultation.

This amendment is purely technical in nature and offers clarification to the original Directive.

The 2003 Directive and resultant UK SI 3311/2006 which currently enacts the restrictions on CCA were subject to full public consultations and an RIA. The RIA is attached at the end of the Memorandum at annex A.

The Health and Safety Executive and the Forestry Commission have been consulted. Major UK trade associations for Wood Preservation and those for wood and timber products confirm that this amendment does not merit, nor is there a case for public consultation as it only clarifies a position which is well understood in the UK. They also confirm that manufacturers of wood preservatives containing arsenic compounds withdrew these from the market and those companies treating timber in the UK now use arsenic free alternatives as of September 2006.

7.6 Guidance

None needed as there is no new burden and UK industry already act according to the amended provisions.

8. Impact

8.1 A new Regulatory Impact Assessment has not been prepared for this instrument as there is no new burden.

8.2 There is no impact on the public sector.

9. Contact

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**TRANSPOSITION OF DIRECTIVE 2006/139/EC OF THE EUROPEAN COMMISSION
– RESTRICTIONS ON THE MARKETING & USE OF ARSENIC COMPOUNDS**

This Directive has been transposed in the UK by the following measure:

Environmental Protection – The Controls on Dangerous Substances and Preparations (Amendment) Regulations 2007. SI No [...]

EC Directive 2006/139/EC (Official Journal No. L384, 29 December 2006, page 94-97) adapts to technical progress Council Directive 76/769/EEC restricting the marketing and use of arsenic compounds.

Statutory Instrument 2007 No. [...] Environmental Protection - The Controls on Dangerous Substances and Preparations (Amendment) Regulations 2007. Regulation 2 and the Schedule (at point number 20) transpose into UK law Directive 2006/139 EC to :

Prohibit the use of arsenic compounds as a substances and constituents of preparations intended for use:

1) To prevent the fouling by micro-organisms, plants or animals of:

- the hulls of boats,
- cages, floats, nets and any other appliances or equipment used for fish or shellfish farming,
- any totally or partly submerged appliances or equipment;

2) In the preservation of wood. Furthermore, wood so treated may not be placed on the market; Unless the substances and preparations used in the preservation of wood are only used in industrial installations using vacuum or pressure to impregnate wood if they are solutions of inorganic compounds of copper, chromium, arsenic (CCA) type C. Wood so treated may not be placed on the market before fixation of the preservative is completed.

3) Wood treated with CCA solutions in industrial installations according to point (2) above, may be placed on the market for professional and industrial use provided that the structural integrity of the wood is required for human or livestock safety and skin contact by the general public during its service life is unlikely:

- as structural timber in public and agricultural buildings, office buildings, and industrial premises,
- in bridges and bridgework,
- as constructional timber in freshwater areas and brackish waters, e.g. jetties and bridges,
- as noise barriers,
- in avalanche control,
- in highway safety fencing and barriers,
- as debarked round conifer livestock fence posts,
- in earth retaining structures,
- as electric power transmission and telecommunications poles,
- as underground railway sleepers.

Without prejudice to the application of other Community provisions on the classification, packaging and labelling of dangerous substances and preparations, all treated wood placed on the market shall be individually labelled **“For professional and industrial installation and use only, contains arsenic.”**

In addition, all wood placed on the market in packs shall also bear a label stating **“Wear gloves when handling this wood. Wear a dust mask and eye protection when cutting or otherwise crafting this wood. Waste from this wood shall be treated as hazardous by an authorised undertaking.”**

4) Treated wood referred to under points (2) and (3) may not be used:

- in residential or domestic constructions, whatever the purpose,
- in any application where there is a risk of repeated skin contact,
- in marine waters,
- for agricultural purposes other than for livestock fence posts and structural uses in accordance with point (3),
- in any application where the treated wood may come into contact with intermediate or finished products intended for human and/or animal consumption.

5) However wood treated with arsenic compounds which is-

- (a) placed on the market in accordance with the conditions in points (3) and (4) ; or
- (b) in use in the Community before 30 September 2007, may remain in place and continue to be used until it reaches the end of its service life; and

6) Wood treated with CCA type C which is;

- (a) placed on the market in accordance with the conditions in points (3) and (4); or
- (b) in use in the Community before 30 September 2007, may be used, reused or placed on the second hand market subject to the conditions in points (3) and (4); and

7) Wood treated with CCA solutions other than type C which is in use in the Community before 30 September 2007, may be used, reused or placed on the second hand market subject to the conditions in points (3) and (4).

8) May not be used as substances and constituents of preparations intended for use in the treatment of industrial waters, irrespective of their use.

Background

On 29 December 2006 the European Commission issued Directive 2006/139/EC, amending Council Directive 76/769/EC. This places restrictions on the marketing and use of arsenic

A risk assessment and analysis of the advantages and drawbacks of restrictions on arsenic in certain wood preservatives were carried out in the framework of a review of Community legislation concerning the use of arsenic compounds for wood preservation following the accession of Austria Finland and Sweden to the EU in 1995. The European Scientific Committee on Toxicity, Ecotoxicity and the Environment (CSTEE) was consulted and concluded that the main risks had been identified correctly and included those to human health from the disposal of wood treated with wood preservatives containing copper chrome arsenic (CCA) and in particular risks to children's health from the use of CCA treated wood in playground equipment. As risk to the aquatic environment in certain marine waters was also identified.

Rules concerning wood treated with arsenic compounds in Directive 76/769/EC do not adequately distinguish between the first placing on the market and the re-use of such wood. It was therefore necessary to clarify those rules and in particular the placing of such wood on the second hand market.

Regulatory Impact Assessment - Transposition of Directive 2006/139/EC on the Marketing and Use of wood treated with Arsenic containing compounds

Issue

1. Transposition into UK law of Directives 2006/139/EC which adapts to technical progress Council Directive 76/769/EC relating to the marketing and use of certain dangerous substances and preparations. Directive 2006/139/EC relates to the rules concerning wood treated with Arsenic compounds in Directive 76/769/EC, and distinguishes between the first putting on the market and re-use of such wood.
2. This Directive does not merit a new Regulatory Impact Assessment (RIA). It is purely a technical amendment to Directive 2003/2/EC which implements the current restrictions on Copper Chrome Arsenic (CCA) wood preservative – an Arsenic compound.

Background

3. Controls on the marketing and use of Arsenic compounds in wood preservative were first put in place by Directive 1989/677/EC which in turn were updated and amended by Directive 2003/2/EC.
4. On 29 December 2006 the European Commission issued Directive 2006/139/EC, amending Council Directive 76/769/EC. This places restrictions on the marketing and use of Arsenic compounds and clarifies the rules in Directive 76/769/EC concerning wood treated with Arsenic compounds, which did not adequately distinguish between the first placing on the market and the re-use of such wood. It was therefore necessary to clarify those rules and in particular the placing of such wood on the second hand market.
5. Directive 2003/2/EC and the resultant UK statutory instrument 3274/2003 through which it is implemented, were subject to full public consultation and a RIA (attached at Annex A), neither of which identified any issues to necessitate another RIA for the amendment sought through this Directive.
6. A risk assessment and analysis of the advantages and drawbacks of restrictions on Arsenic compounds in certain wood preservatives were carried out in the framework of a review of Community legislation concerning the use of Arsenic compounds for wood preservation following the accession of Austria, Finland and Sweden to the EU in 1995. The European Scientific Committee on Toxicity, Ecotoxicity and the Environment (CSTEE) was consulted and concluded that the main risks had been identified correctly in the report and included those to human health from the disposal of wood treated with wood preservatives containing CCA and in particular risks to children's health from the use of CCA treated wood in playground equipment. As risk to the aquatic environment in certain marine waters was also identified.
7. For this latest amendment (2006/139/EC) the Health and Safety Executive and the Forestry Commission have been consulted. Major UK trade associations for Wood Preservation and those for wood and timber products confirm that this amendment does not merit, nor is there a case for further public consultation as it only clarifies a position which is well understood in the UK. They also confirmed that manufacturers of wood preservatives containing Arsenic compounds withdrew these from the market and those companies treating timber in the UK now use Arsenic free alternatives as of September 2006.

Costs

8. Cost associated with conforming to the requirements of the marketing and use restrictions are detailed in the regulatory impact assessment prepared on for the 2003 European legislation at Annex A.

Benefits

9. See regulatory impact assessment at annex A.

Securing Compliance

10. See regulatory impact assessment at annex A.

Impact on Small Business

11. See regulatory impact assessment at annex A.

Monitoring and Evaluation

12. See regulatory impact assessment at annex A.

Consultation

13. During development of the regulatory impact assessments at Annex A, two extensive public consultation were undertaken with industry, downstream users, trade associations and other key stakeholders with an interest in wood preservatives/preservation.

Declaration

I have read the regulatory impact assessment and I am satisfied that the benefits justify the costs.

Signed by the Minister responsible

.....**Jeff Rooker**.....
.....**30th May 2007**.....

Annex A

Copper Chrome Arsenic Regulatory Impact Assessment

Tenth adaptation to technical progress of Annex I to Council Directive 76/769/EEC relating to restrictions on the marketing and use of copper chrome arsenic (CCA)

1. Purpose and Intended Effect of the Measure

The European Commission has prepared a draft proposal to adapt to technical progress the Marketing and Use Directive (76/769/EEC) to prohibit the use of copper chrome arsenic (CCA) as a wood preservative. This proposal is based on a potential risk to children's health from wood treated with preservatives containing CCA in playground equipment and risks to human health from the use of treated wood. The risks related to domestic household burning of CCA treated wood will also be addressed. The Commission's scientific committee (CSTEE) also reached a number of conclusions, in particular that the substance is both genotoxic and a well-known carcinogen and it may be appropriate to assume that no safe level exists. Based on this advice the European Commission brought forward proposals to restrict the marketing and use of CCA.

1.1 The Objective

The main objective of the Commission proposal is to reduce potential risk to children's health from wood treated with preservatives containing CCA in playground equipment and risks to human health from the use of treated wood. Risks to the environment were also identified.

1.2 The background

Wood preservation products based on a mixture of copper sulphate, sodium dichromate and arsenic pentoxide have been used for decades for the industrial pre-treatment of timber using pressure impregnation. The chemicals bind with constituents in the wood and are essentially 'fixed' to the wood in a form that is resistant to leaching out by water. The treated timber is used in areas where long term protection is needed and this resistance to leaching is particularly important in eg telegraph poles, motorway fencing and timber in cooling towers. Some treated timber is used in outdoor playground equipment.

It is well established that both inorganic arsenic compounds (such as arsenic pentoxide) and sodium dichromate can produce serious adverse health effects, in particular cancer, and both are regarded as human carcinogens. The concerns with arsenic specifically relate to skin and lung cancer, and in the case of dichromate, lung cancer when exposure is via inhalation.

There is no doubt that the components of CCA are hazardous. They are only used at industrial sites under strictly controlled conditions. The treatment process is in enclosed systems and any exposure to operators is minimal.

With regard to the treated wood, again normal handling and use does not result in any significant exposure because of the fixation of the compounds in a form which does not result in any exposure to the compounds of concern.

1.3 Risk Assessment

A risk assessment¹ commissioned by the Enterprise Directorate General on the use of arsenic in wood treatment identified a number of risks considered unacceptable including to children's health from the use wood treated with wood preservatives containing inorganic arsenic and to human health from the disposal of CCA treated wood. The risks can be summarised as:

- To children's health from the use of wood treated with wood preservatives containing copper, chrome and arsenic in playground equipment
- Significantly increased lung cancer risks from uncontrolled use of CCA treated wood for home heating
- Significant effects on the environment from uncontrolled burning and disposal of CCA treated wood
- Marginally increased lung cancer risks from the controlled use of CCA treated wood
- Effects on aquatic organisms in low phosphate marine waters, arising from arsenic leaching from CCA treated wood, and
- Potential risks from unpredictable long term leaching behaviour of arsenic in special waste landfills.

The disposal risk relates mainly to household burning of waste treated with CCA.

The CSTEE also stressed a major concern in relation to the a serious knowledge gap in relation to landfills and concluded that it would be advisable to exercise caution by limiting the use of arsenic-based wood preservatives to those situations where it is absolutely necessary.

The CSTEE has recently concluded that CCA is both genotoxic and a well known carcinogen. In addition, although there are some reasons for considering that there may be a threshold for carcinogenicity, the direct evidence to support this is poor. In the absence of such data, the CSTEE considers that it may be appropriate to assume that no threshold (safe level) exists. They add that this would not allow a basis for setting a threshold limit because the EU has not established criteria for an "acceptable" risk. This recent opinion suggests that the risks to human health might be greater than previously thought and in particular, those identified in the earlier risk assessment.

Environment

Review of the CCA proposals by the Environment Agency concurs with the WS Atkins risk assessment in that the greatest amount of leaching of CCA occurs when the wood is first installed, but that this decreases significantly after an initial period of high

¹ Assessment of the risks to health and to the environment of tin organic compounds and of arsenic in certain biocidal products and of the effects of further restrictions on their marketing and use – WS Atkins Environment April 1998.

leaching. The risk of adverse impact decreases quickly with increasing distance from the wood. This means that any impacts are likely to be short term and localised.

The WS Atkins review concluded that, of the limited active substances available for use in water or in contact with the ground, none were particularly better or worse than the others. It was able to show that for treated timber not in contact with the ground (where there are many products available) some of the alternatives to CCA posed a lower risk to the environment.

The WS Atkins review raised other issues, including that for use in marine water and fresh water, there are very few timber treatments that are currently available (for marine water there is only CCA and creosote). For freshwater and timber in contact with the ground, there are two further alternatives. These are the more recently developed copper azoles (CBAs) and ammoniacal copper quaternary compounds (ACQs). These products are marketed as being more environmentally acceptable as they do not contain arsenic and chromium. However, during the Environment Agency review, no data was available in relation to leaching or aquatic toxicity to help compare them with CCA. Therefore at this stage it is not possible to accurately predict if there would be a net benefit from the use of these alternatives.

The Commission is proposing a ban in marine waters, but not in fresh waters, based on the WS Atkins study. This does not appear to be due to any differences in the sensitivity of marine and freshwater organisms nor due to differential arsenic leaching rates from CCA treated wood in sea and fresh waters. It is because WS Atkins indicates that the background concentration of arsenic in marine waters is higher than that in freshwaters (because of natural marine sources) and any additional input of arsenic to the marine environment would exceed the predicted no-effect concentration (PNEC) of 2 µg/l. We find this approach questionable. It should be recognised that marine life has adapted to elevated levels of arsenic and it is presumptuous to assume that any additional arsenic will impact on the ecosystem. Based on the WS Atkins data, it is not possible to conclude that the use in marine waters represents an unacceptable risk to the environment.

With respect to the use of CCA-treated timber within agriculture, this appears to be limited to stakes used in orchards and vineyards and therefore timber that is in contact with the ground and vegetation. Any loss of CCA in these circumstances would be localised. Based on the WS Atkins data, the use in agriculture does not represent an unacceptable risk to the environment.

Regarding the issue of leaching from landfill, there is no further detailed information on these issues; however the Environment Agency would concur with the conclusions made in the WS Atkins review that from the limited information available, there are no likely unacceptable risks. Furthermore, the Commission's Consultation Document suggests that recent Community legislation on waste will ensure proper disposal of industrial waste wood. This is correct. Waste 'wood containing dangerous substances' is classified as hazardous in the European Waste Catalogue (entry numbers 19 12 06 and 20 01 37). There are specific controls under the Landfill Directive to ensure that hazardous waste is disposed of properly. This contrasts with the Commission's view that these sources pose unacceptable risks.

In respect of the impact on air quality from uncontrolled burning at an air concentration of arsenic of 1 microgram per cubic metre (1 ug/m³) the WHO Guidelines for Europe 1987 indicate that conservative estimate of lifetime risk is 1 in 133. There are therefore serious health risks from the burning of CCA treated wood. Concentration of chrome in CCA treated wood is similar to that for arsenic, but may be present in a more toxic and carcinogenic form.

The National Atmospheric Emissions Inventory indicates 0.1% of UK annual emissions of arsenic result from burning treated wood from uncontrolled combustion, such as open fires on demolition sites, bonfires, etc. This could give rise to localized concentrations in ambient air.

Disposal through Municipal Waste Incinerators and other facilities controlled by the Waste Incineration Directive should not be a major source of arsenic emissions as the Directive imposes limits on total emissions of specified metals including arsenic and chromium. Controls under Integrated Pollution Prevention Control (IPPC) would apply to prevent harmful releases to air. There may be smaller scale furnaces, regulated under the Clean Air Act for, burning wood waste material which might include CCA treated wood.

Waste CCA treated wood was classified in 2000 as hazardous waste and has been added to the list of controlled substances. The requirements for safe disposal which apply to hazardous waste will now also apply to waste CCA treated wood to reduce emissions to air and the environment.

The restrictions on the marketing and use of CCA will help to reduce amounts CCA treated materials which might otherwise have been disposed through uncontrolled burning and should contribute to reducing concentrations of pollution in ambient air.

Human health

The main public health concerns relate to risks to children from the use of CCA treated timber in playgrounds.

It is generally accepted that inorganic arsenic compounds are human carcinogens both by the oral and inhalation route, and that this involves a genotoxic mechanism. We make the prudent assumption that such effects do not have a threshold, and that any exposure is associated with some increased risk, albeit this may be very small. In addition chromate is also a recognised human carcinogen when exposure is via inhalation; again a genotoxic mechanism is thought to be involved.

The assumption had been made in the past that the CCA in treated timber was firmly fixed in the wood and that normal handling and use did not result in any significant exposure to the individual compounds of concern (inorganic arsenic and hexavalent chromium). However the data presented in the report by WS Atkins, and considered by the CSTEE, challenge this conclusion.

They provide data from 2 studies that indicates there is potential for exposure to inorganic arsenic and that the main route is by dermal contact and then transfer from hands to the mouth leading to oral ingestion. One study was carried out in France and another in California but only few details are available: neither study has been

published in a peer-reviewed journal. However both show a similar order of exposure namely 7.5 µg/kg bw/day in one case (this appears to be based on one study only) and an average value of 0.8 µg/kg bw in the second (worst case 4.8 µg/kg bw). These values can be compared with background exposure of children to arsenic from food and water; a mean value of 4.3 µg/day has been reported for 6 year old children in the UK, giving a value of around 0.2 µg/kg body wt/day (assuming a 20 kg child).

On the basis of the data provided in the Atkins report the intake values calculated from CCA treated timber represent a significant increase (more than an order of magnitude) over background exposures from food and water (intakes from air being negligible in comparison). It is accepted that the exposure values are based on very limited data, and it is not known if they were obtained from recently treated timber. It is likely that fixation occurs more firmly with time. However they are the only data we have upon which to base any assessment of potential health risks.

As stated earlier any exposure to inorganic arsenic is assumed to be associated with an increase risk of cancer, although this may be very small. It is not possible to quantify the risks. However any risks arising from intermittent exposure to such levels is likely to be very small.

Recently we have considered exposure to arsenic in the context of soil contamination, and earlier this year DEFRA/EA (with input from DH and FSA) published documentation on the collation of toxicological data and intake values on arsenic for humans. (Ref: Contaminants in soil: collation of toxicological data and intake values for humans. Arsenic DEFRA/EA 2002). In the case of genotoxic carcinogens such as inorganic arsenic the concept of an Index Dose is used, namely a dose that poses a minimal level of risk, but with the additional requirement that exposure needs to be reduced to as low as is reasonably practical. The value recommended as an Index Dose for inorganic arsenic was 0.3 µg/kg bw/day. This was based on the WHO and USEPA drinking water guideline values. It is more conservative than the earlier (1983) FAO/WHO Expert Committee on Food Additives (JECFA) provisional tolerable weekly intake of 15 µg/kg bw (equivalent to about 2 µg/kg bw/day; this was the TDI used for references purposes in the WS Atkins report).

Thus the potential oral exposure to children from contact with CCA treated wood in playgrounds appears, from very limited data, to be around 1-8 µg/kg bw/day. This compares to a minimal risk level of 0.3 µg/kg day.

Thus there is a very small, but unquantifiable risk of cancer to children from ingestion of inorganic arsenic in this situation. Although the risk is very small, the adverse health effect is serious, and a large number of children are potentially exposed. This does give rise to concern.

Studies carried out on behalf of the Health and Safety Executive on all phases of exposure by workers indicate that there are no concerns

1.4 Business sectors affected

It is thought that the suggested measures would impact on CCA preservative producers and wood-treaters. In terms of the impacts on business, the following industries are involved in the marketing and use of arsenic in wood preservation:

- CCA preservative producers;
- Wood treaters
- End-users (those using CCA-treated wood in applications identified above).

2. Options

Do nothing

Risk assessment undertaken by the Commission and views of the CSTEE indicate concerns for children and public health from the use of CCA treated wood that must be addressed. Concerns have also been identified for the environment. In view of the seriousness of the human health concerns identified, 'do nothing' (ie have no Directive at all) would not be an acceptable option.

Marketing and Use restrictions

Marketing and use restrictions would address the risks identified by the WS Atkins risk assessment and the concerns of the CSTEE.

The proposed marketing and use restrictions are intended to ban the use of arsenic substances and constituents of preparations intended for use, CCA may not be used:

a) To prevent the fouling by micro-organisms, plants or animals of:

- the hulls of boats,
- cages, floats, nets and any other appliances or equipment used for fish or shellfish farming,
- any totally or partly submerged appliances or equipment;

b) In the preservation of wood. Furthermore, wood so treated may not be placed on the market.

c) However, by way of derogation:

i) Relating to the substances and preparations in the preservation of wood: these may only be used in industrial installations using vacuum or pressure to impregnate wood if they are solutions of inorganic salts of the copper, chromium, arsenic (CCA) type C.

ii) Relating to wood treated with CCA solutions in industrial installations according to point (i): this may be placed on the market for professional and industrial use provided that the structural integrity of the wood is required for human or livestock safety and skin contact by the general public during its service life is unlikely:

- as structural timber in public and agricultural buildings, offices, and industrial premises;
- in bridges and bridgework;
- as constructional timber in inland freshwater areas e.g. jetties;
- as noise barriers;
- in avalanche control;
- in highway safety fencing and barriers;
- in earth retaining structures;
- as electric power transmission and telecommunications poles;
- as underground railway sleepers.

Without prejudice to the application of other Community provisions on the classification, packaging and labelling of dangerous substances and preparations, all treated wood placed on the market shall be individually labelled "For professional and industrial

installation and use only, contains arsenic". In addition, all wood placed on the market in packs shall also bear a label stating "Wear gloves when handling this wood. Wear a dust mask and eye protection when cutting or otherwise crafting this wood. Waste from this wood shall be treated as hazardous by an authorised undertaking".

iii) Treated wood referred to under points (i) and (ii) may not be used:

- in residential or domestic constructions, whatever the purpose;
- in any application where there is a risk of repeated skin contact;
- in marine waters;
- for agricultural purposes other than for structural uses according with point (ii);
- in any application where the treated wood may come into contact with intermediate or finished products intended for human and/or animal consumption.

2. May not be used as substances and constituents of preparations intended for use in the treatment of industrial waters, irrespective of their use."

Delay action pending the conclusions of the Biocides Directive

CCA is included in the first tranche of reviews being looked at under the Biocidal Products Directive (BPD). Companies are required to submit dossiers at the latest by March 2004. (Dossiers may be submitted from October 2003 until March 2004). Reviews must be completed by MS within 12 months. There will then be discussion at EU level, with final decisions being made from mid 2005 onwards. It is likely to be December 2004 before any Marketing and Use restrictions take effect; a delay of perhaps 6-12 months in advance of possible decisions under BPD.

Member States and industry have planned their research to co-incide with the BPD timetable. There is very little current data on exposure to children in playgrounds, which makes anything other than a precautionary approach very difficult. Decisions under BPD should be more scientifically robust given the quantity of data required, but delays could occur.

Awaiting the BPD would be a preferred option in order to gain a full picture of uses; by then there should be sufficient new research to perform accurate risk assessments. However, in the light of the CSTEE concerns of a risk to children using playground equipment, and of a wider public health risk, DG Enterprise and a majority of Member States may consider that there is no option other than to take a precautionary approach immediately, and push ahead with the proposal to restrict uses of treated wood.

3. Benefits

The benefits would be a reduction in risk (from a substances that is both genotoxic and a well known carcinogen) to children's health from the use of CCA treated wood in playground equipment and risks to human health from its use and disposal. Risks would also be reduced to the aquatic environment in certain marine waters and as waste. The CSTEE also noted that that further risks from CCA treated wood may exist for children through the ingestion of sand particles in playground sandpits.

4. Costs for business, charities and voluntary organisations

Summary

It is estimated by the British Wood Preserving and Damp Proofing Association (BWPDA) that the likely economic consequences, to the UK, of the restriction of CCA to the end uses listed in the Commission's proposal are:

- plant conversion costs ranging from £0.5 to £2.5 million;
- £700,000 annual cost of labelling; and
- £1 million cost to the CCA preservative manufacturers to increase capacity for or commission new plant for the manufacture of alternatives.

The BWPDA considers that, based on the experiences with CCA restrictions in other Member States, there will be no redundancies in the wood treatment industry or the forest products sector in the UK. However, there is a potential 300 job loss should SMEs be unwilling to invest in plant conversion. 50 job losses are anticipated from the loss of UK manufacture.

It is assumed that existing CCA structures, e.g. children's playground equipment and decking, or the soil beneath them, will not be removed and that the EC will draft the Directive to ensure clarity and avoid unnecessary public concern.

Alternatives to CCA are available in the UK where the treated wood cost is comparable to, or slightly higher than, CCA treated wood.

With 7000 tonnes of CCA used annually in the UK at an average retention of product of 5 kg/m³, 1.4 million m³ of treated wood is produced annually in the UK. At an average cost of £130 /m³ for treated wood (including wood cost), the value of the treated wood is £182 million annually.

£ 0.5 to £2.5 million on Plant Conversion costs – The cost of conversion of treatment plants includes waste CCA disposal (if necessary), transport of CCA treating solution to another CCA plant to be used, replacement of plant components, cleaning of plant, minor modifications to the operation of the plant, labour, training, documentation.

£700,000 annual cost of labels - If the labelling of each piece of CCA treated wood is required, with 50 pieces of wood per m³, and 1.4 million m³ treated annually, 70 million labels will be required annually. At a cost of 1p per label, the cost of labelling (excluding labour) will be £700,000 annual.

£1 million cost of plant to manufacture alternatives - Of the four manufacturing sites in Europe, three are in the UK. If the use of CCA is restricted to a few low volume commodities, CCA manufacture will not be commercially viable, resulting in up to 50 redundancies in the UK. UK suppliers of raw materials (e.g. chromium) would also be affected.

The cost of setting up large scale manufacture of alternatives, including licensing and capital investment of plant and buildings, has been estimated at £1 million.

Redundancies in wood treatment industry.

Experience from other Member States is that CCA restriction does not result in redundancies in the wood treatment industry.

However, concern has been expressed that there would be 100 small (SME) treatment plant companies in the UK which would be 'at risk' because they cannot afford plant conversion or consider that the increased cost of treating wood with alternatives is not commercially viable. If it is assumed that three operators (transport / sales persons) per company were affected, 300 jobs would be potentially 'at risk'.

Redundancies in wood supply chain and forest products sector

Experience from other Member States is that CCA restriction does not result in redundancies in the forest products sector.

Concern have been expressed that restriction of the use of CCA could cause architects, specifiers, agricultural fencing contractors and the public to stop buying treated wood due to human health concerns, and to buy alternatives to wood. This has been successfully avoided in other Member States ensuring that forestry workers, sawmill workers, transport drivers, dock workers, timber merchant workers and retail staff are unaffected. Advice has been received from Defra Agriculture, Environment & Food Technology Division that the agricultural sectors will use available products treated with available alternatives and no additional costs over those for suppliers have been identified.

Existing CCA preserved playground equipment and decking

It is assumed that existing CCA preserved playground equipment and decking, and the soil beneath them, will not be removed. In accordance with the general principle of legal certainty, there is a presumption against retroactivity of Community legislation, and there is no attempt in this proposal to include wording purporting to give it retroactive effect. Therefore the Commission Directive would not have retroactive effect, and so the prohibition on marketing and use of arsenic compounds would apply only to use taking place on and after the date by which Member States must apply its provisions.

To ensure clarity, avoid the potential for unnecessary public concern, and a serious risk to childrens' health and safety through the loss of playground amenity, the Commission should be encouraged to incorporate a recital in the Directive similar to the statement made by the EPA in the USA i.e. "CCA-treated wood does not pose unreasonable risks to the public for existing CCA-treated wood being used around or near their homes or from wood that remains available from stores. There is no reason to remove or replace existing structures or for surrounding soils to be removed or replaced."

Failure to achieve clarity could result in costs to the UK in excess of £500m

Higher cost of Alternatives

Alternatives to CCA are available. The raw material costs, manufacturing costs and formulated product cost per tonne is higher than CCA. In the higher hazard class end uses, such as in ground contact, some of the alternatives require more product to be impregnated into the wood than CCA to achieve an effective performance in service, so treated wood costs are higher than CCA.

Alternatives to CCA are available in the UK where the treated wood cost is comparable to, or slightly higher than, CCA treated wood. However, none of the alternative formulations have the 60 year proven track record of efficacy comparable to CCA preservatives, especially for ground contact use, where the risk of biodeterioration is greatest.

'Dual-stocking' of treated wood

The current draft of the Annex would require some treaters to have two stocks of preserved wood e.g. fencing for domestic use or roadside use, roofing timbers for domestic buildings or industrial buildings. It is assumed that the next draft of the Annex will clarify and rationalise the end uses so that dual-stocking is not required.

5. Competition assessment

The proposed restrictions would not affect any one firm more than the others. Since there will not be any differential effects, the proposed Directive should not affect market structure or competition in the industry. Nor should it lead to higher set-up costs for new firms, that existing firms would not have to meet. Costs should fall on firms in proportion to their production or use.

6. Enforcement, sanctions, monitoring and review

If the proposal is adopted as a European Directive, enforcement arrangements and sanctions will be determined during the transposition of the Directive into UK law. The implementing regulations will be monitored and reviewed in accordance with normal procedures. A review will be required once the implementing regulations have been in force for 2-3 years to assess effectiveness.

7. Consultation

7.1 Within Government

The RIA has been prepared in close cooperation with Department of Health, Health and Safety Executive, Department of Trade and Industry, the Devolved Administrations and other Government Departments with an interest.

7.2 Public Consultation

Consultation is being undertaken with identified trade associations, industry contacts and other non governmental organisations with an interest.

8. Summary and recommendation

The general principles behind the proposed Directive is to prohibit the marketing and use of CCA treated wood but to have derogations to allow use in situations where it is needed to provide structural integrity of the wood for human or livestock safety and where skin contact by the general public during its life cycle is limited.

The main concerns are protection of human health and in particular the use in playground equipment. It is concluded that there is a very small, but unquantifiable risk of concern to children from the use of CCA treated wood in playground equipment. The Directive will also prohibit the use of treated wood in residential or domestic constructions. There is limited information available on potential exposure in these circumstances, but it is considered likely, particularly with greater use by the public of lofts.

In view of the serious nature of the adverse effect and the fact that a large number of children are potentially exposed, there is sufficient justification to support the Directive.