



AIA Information Memorandum (AIM) No. 3/80
Updated 1 August 1989

Summary of Main Features of Asbestos/Health Regulations at the Workplace

COUNTRY (1)	REGULATIONS (2)	STANDARD CONCENTRATION (3)	ADDITIONAL INFORMATION (4)
<u>SERIAL</u>			
1. EEC	1. DGV Asbestos Directive 83/477/EEC adopted by the EC Council on 19 Sept '83. <u>Effective Dates:</u> Manufacturing: 1 Jan 1987 Mining: 1 Jan 1990 2. **DG III Asbestos Directive 83/478/EEC (known as the DG III A Directive) adopted by the EC Council on 19 Sept. '83. Effective 20 March 1986.	<u>Limit Values</u> 0.5 f/ml for Crocidolite 1.0 f/ml for other fibres *Ax + By for mixtures <u>Action Level:</u> 0.25 f/ml for all types (or 15 f/days/ml over three months i.e. 15 days x 8hours = 120 fibre hours/ml.)	On 5th June '89 Government Experts met and agreed: - not to change the field of application of the Directive (83/477/EEC) - to adopt 2 limit values: 0.3 f/ml for crocidolite and amosite 0.8 f/ml for other asbestos fibres - to adopt 2 action levels: 0.1 f/ml for crocidolite and amosite 0.25 f/ml for all other fibres - to keep the mixture rules as in the 1983 Directive. (The above is not yet ratified.)

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COUNTRY (1)	REGULATIONS (2)	STANDARD CONCENTRATION (3)	ADDITIONAL INFORMATION (4)
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1. EEC cont'd.			The Use of Crocidolite is restricted but Member States may allow three exceptions: 1. asbestos-cement pipes (all diameters); 2. acid, alkali and temperature resisting seals, gaskets and packings; 3. torque converters. (see Directive for exceptions to effective date for other crocidolite articles) The use of chrysotile and other asbestos fibres (except crocidolite) is restricted for six (6) particular products. Deals with the prevention and reduction of environmental pollution by asbestos (from factories, etc.)
	3. **DG III Asbestos Directive 85/610/EEC (known as the DG III B Directive) adopted by the E.C. Council on 20 Dec. 1985. Effective 31 Dec. 1987. 4. ***DG IV Asbestos Directive 87/217/EEC adopted by the E.C. Council on 19 March 1987. Effective 31 Dec. 1988 (except for plants built before 31 Dec. 1988; for these the effective date is 30 June 1991.)		
	* A = % of Crocidolite fibre in FINISHED product B = % of non-Crocidolite fibre in FINISHED product x = limit value for Crocidolite fibre (0.5f/ml) y = limit value for non-Crocidolite fibre (1.0 f/ml)		

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COUNTRY (1)	REGULATIONS (2)	STANDARD CONCENTRATION (3)	ADDITIONAL INFORMATION (4)
<u>SERIAL</u>			
1. EEC cont'd.	** This Directive concerns marketing and not the workplace; it is listed because it has an indirect impact on Workplaces. *** This Directive concerns the emissions from factories; it is listed because it has an indirect bearing on Workplaces.		
2. AUSTRALIA	The recommendations of the Australian National Health and Medical Research Council's 1981 Report were effective from 31 December 1982.	1.0 f/ml for Chrysotile 0.1 f/ml for Crocidolite and Amosite	Use of Amosite and Crocidolite is prohibited in all States. Application of asbestos by spraying is forbidden in New South Wales and requires special permission in all other states. In all states a medical examination including a chest x-ray, has to be provided for each employee within 90 days of commencement of employment and thereafter at intervals of three years. In the state of Victoria employees must refrain from smoking at work. <u>23 June 1987</u> Most states have recently gazetted asbestos regulations for construction work and for removal of thermal and acoustic asbestos insulation from buildings and structures, several requiring licensing of removal contractors.

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3.	AUSTRIA 1 January 1988 (amended 22.8.88)	0.5 f/ml* for Crocidolite 1.0 f/ml** for all other types 2.0 mg/m ³) Dust containing fine dust) asbestos 2.5% (weight %) * 0.5 x 10 ⁶ f/m ³ & 0.025 mg/m ³ fine dust. ** 1.0 x 10 ⁶ f/m ³ & 0.05 mg/m ³ fine dust.	These values are averages relating to a reference period of 8 hours (one shift). Effective from 1.1.88 the use of asbestos- containing brake linings and clutches for cars will be banned.
4.	BELGIUM Royal Decree dated 28.8.86	a. All types except Crocidolite 1.0 f/ml b. For pure Crocidolite dust 0.15 f/ml c. For dust from fibre mixtures - total fibre reading must be 1.0 f/ml - the product of (total fibre reading) x $\frac{(A)}{100}$ must be below 0.15 f/ml	Authorisation must be obtained from the Ministry of Labour and Employment for the handling of all types of raw asbestos fibres and for both manufacturing and handling of products containing no or almost no binder, such as yarn, rope. <u>No authorisation is needed for the</u> <u>handling of finished products where the</u> <u>asbestos is locked in</u> (such as asbestos- cement, vinyl tiles, etc.)
5.	BRAZIL Ministry of Labour Regulation No. 3,124 of 8 June 1978 from 6 July 1978.	4.0 f/ml longer than 5 μ m for all types of asbestos, measured by the membrane filter method.	A Ministry of the Environment Resolution (1987) requires the Ministry to prepare: a. Standards and procedures for mining, transport, manufacturing, commercial- isation and use of asbestos and its products concerning occupational and general environment. b. A plan for the use of asbestos and eventual substitutes.

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6. CANADA	Regulation of Asbestos under Canada Labour Code (CLC) (Part IV)	0.5 f/ml Amosite (5 m) 2.0 f/ml Chrysotile (5 m) 0.2 f/ml Crocidolite (5 m) 2.0 f/ml Other forms (5 m) 0.04 mg/m ³ Ambient Air Quality Guide	Several provinces have incorporated by reference the exposure limits recommended by the ACGIH*, except Ontario where the TLV is 1.0 f/ml for Chrysotile. * American Conference of Government Industrial Hygienists.
7. CHILE	Supreme Decree No. 1106 dated 9 November 1954 of the Ministry of Health revised by Supreme Decree No. 19 dated 14 January 1976. Updated by Supreme Decree No. 78 dated 9 February 1983.	2.0 f/ml Fibres longer than 5 m.	
8. DENMARK	Ministry of Labour Regulation No. 660 of 24 September 1986 as amended. Effective from 1.5.88.	0.3 f/ml asbestos excl. Crocidolite 0.3 f/ml Crocidolite (ceiling value only). Other mineral fibres: See AIM 1/87 Serial 5	Ban on manufacture, import and use of asbestos or asbestos-containing materials of all kinds. Following exemptions apply: until 1 July 88: asbestos-cement materials until 1 Jan. 90: commutators until further notice: friction materials, bonded packing and bearing linings. No "Action Level" in Government Regulations.

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COUNTRY (1)	REGULATIONS (2)	STANDARD CONCENTRATION (3)	ADDITIONAL INFORMATION (4)
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8. DENMARK cont'd.			A phasing-out scheme for asbestos has been approved by Parliament in 1986, giving the middle and long-term aims. Amendments to the 1986 regulations are to be issued accordingly. The suggestion to lower the TLV to 0.3 f/ml is one of the elements of the phasing-out scheme.
9. FINLAND	Effective 1.1.89	0.5 f/ml for all types	Spraying and the use of Crocidolite is prohibited. However, exemptions may be obtained from the Labour Protection Board. Asbestos waste and products that can cause cancer must be labelled: A/C products are excluded.
10. FRANCE	Decree No. 77-949 17 August 1977. <u>Effective 1.1.87</u>	1.0 f/ml for all types. Dust Emission Standard: See AIM No. 5/84	Spraying of asbestos-base finishings in dwellings is prohibited. Dust sampling must be done every three months if results are below 1.0 f/ml or every month if above 1.0 f/ml. All factories using alternative fibres in addition to asbestos must use the same standard of engineering controls for the alternative fibres as they do with asbestos.

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11. GERMANY	1 October 1986	0.5 f/ml for Crocidolite 1.0 f/ml for all other types of asbestos airborne dust. Action level: 0.5 f/ml Dust Emission Standard: See AIM No. 5/84	1. Total Prohibitions: - spraying (since 1979) - asbestos cement products of density lower than 1.0g/cm³ specific gravity (since 1 April 1984) - thermoplastic compounds 2. Prohibitions (with exemptions clause (since 01.04.84): - spraying material - insulation and absorbing material - filters, painting material, glue - filler material, adhesives - floor and street covering material - mortars and mastics - Crocidolite containing substances except: a. a/c pipes b. Acid and temperature-resisting seals, gaskets, gland packings and flexible compensators c. torque convertors - fire protective clothing with the exception of usage with temperatures above 500°C - asbestos-containing brake and clutch linings except where no suitable substitutes are available.

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COUNTRY (1)	REGULATIONS (2)	STANDARD CONCENTRATION (3)	ADDITIONAL INFORMATION (4)
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11. GERMANY cont'd.			Exemptions clause: Production is possible if the limit is less than 0.5 f/ml. Substitution of all asbestos fibres if other fibres are available and substitution is technically and economically feasible. 4. Voluntary contracts between the German Federal Government and the a/c industry: Innovation programme 1982: 1. In next three to five years commencing 1982, a reduction of asbestos content in a/c products by 30-50%. 2. Annual Report to the Federal Govt. of progress. 3. From July 1982, 95% of all products were pre-processed. 4. Coating: Construction - 80-85% of products were coated. 5. Marketing: Delivery through specialised dealers only, hobby shops (DIY) shall not be supplied. (Germany cont'd next page)

COUNTRY (1)	REGULATIONS (2)	STANDARD CONCENTRATION (3)	ADDITIONAL INFORMATION (4)
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11. GERMANY cont'd.			6. Use of tools with low dust occurrence. - Innovation programme 1984: No asbestos in construction materials by end of 1990.
12. GREECE	February 1988 Adopted EEC Regulations	1.0 f/ml - all fibres except Crocidolite 0.5 f/ml - Crocidolite For mixtures - adopted the formula of Directive 83/477/EEC (serial 1)	
13. INDONESIA ++	Effective 10 January 1983	1.0 f/ml for all types	There are no asbestos regulations but there is a Chemical Floating Value Limit for asbestos dust.
14. INDIA	Model Rule 1234A (Supplemental to the Model Factory Rules under the Factory Act 1948)	2.0 f/ml for all types Until above Model Rule becomes Law, members of the Asbestos Information Centre have voluntarily adopted 2.0 f/ml as the Standard Exposure Limit for all types of asbestos dust.	The Government of India has circulated revised Model Rule to the State Governments. Implementation still awaited by all State Governments.

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15. IRELAND	1984 Adopted EEC Regulations (see Serial 1)	1.0 f/ml - except Crocidolite 0.5 f/ml - Crocidolite	No prohibitions. Special requirements exist when Crocidolite is involved, i.e. marking of containers, notification to Inspectors. (Crocidolite has not been used since 1969). However, Industry has adopted the EEC Regulations (see Serial 1).
16. ISRAEL	Effective 1 January 1987 State of Israel, Safety at Work Regulations	0.5 f/ml for all types Action level: 0.125 f/ml	Youths (under 18 years) shall not work with the material. Obligatory medical examinations. Prohibitions:- 1) Spraying, sprinkling, spreading or any similar procedures. 2) Road paving, chiselling except for crushing in a plant holding a proper authorisation for such. 3) Air and gas filtration, except filtration at temperatures over 340°C
17. ITALY	6 July 1983. National Contract Asbestos and Asbestos Cement Industry, and all Trade Unions. Adopted on 30 June 1984	1.0 f/ml - except Crocidolite 0.5 f/ml - Crocidolite A _x + B _y for mixtures (same as for EEC - Serial 1)	9.7.86 Marketing and use of crocidolite is forbidden, except a/c pipes containing crocidolite for purposes other than carrying drinking water also for manufacture of Joints, Washers and Coupling Convertors (until 30.4.1991).

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18. JAPAN (amended 13.2.89)	Notification 79 of the Ministry of Labour dated 1 September '88 effective 1st October 1988.	2.0 f/ml - except Crocidolite 0.2 f/ml - Crocidolite (fibres 5 microns or longer)	Any product containing 5% or more asbestos content must have warning label attached to it. (i.e. articles containing less than 5% asbestos are legally considered not to be asbestos products).
19. KENYA	No Regulations.		Government is adhering to the spirit of the ILO Recommendation 172 "Safety in the use of Asbestos".
20. MEXICO	1986. (Still awaiting official publication)	2.0 f/ml for all types	
21. NETHERLANDS	Royal Decree 269 (1 April 1977) Asbestbesluit (silicose wet) WORKER PROTECTION	2.0 f/ml for all except Crocidolite Measurements over 8 hour period 0.2 f/ml for Crocidolite Ceiling value but only if exemptions granted.	Crocidolite fibre and products containing Crocidolite, as well as spraying, are prohibited. However, exemptions may be granted by the Labour Inspectorate after consultation with a special tripartite advisory committee on asbestos. NOT YET IN FORCE (as at 13 January 1984) Article 4 prohibits the use of asbestos containing products for thermal and acoustic insulation and also for preserving and decorative purposes.

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COUNTRY (1)	REGULATIONS (2)	STANDARD CONCENTRATION (3)	ADDITIONAL INFORMATION (4)
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21. NETHER LANDS cont'd.	Royal Decree 418 (18 July 1983) Asbestbesluit (Warenwet) CONSUMER PROTECTION	Quality factor 0.35 or more	The Decree only applies to end-products. The Quality factor is measured by the Fibre Fixity Test as given in EEC document III/1481/81. All asbestos-containing products must be labelled.
22. NEW ZEALAND	Effective 1 April 1984	1.0 f/ml - for Chrysotile 0.1 f/ml - for Crocidolite & Amosite	Use of Amosite and Crocidolite is prohibited.
23. NIGERIA	None (The Federal Ministry of Health after consultations with the Nigerian Asbestos Association have agreed on a Code of Practice).	2.0 f/ml - for all types but industry voluntarily sets 1.0 f/ml	No-one under 18 years old may be employed.
24. NORWAY	With effect from 1 July 1986 (Workers Protection Act, Section 56 cf. Sections 5, 6, 7 & 8 dated 7 Dec. 1956)		With effect from 1 July 1986 it will be forbidden to import and/or sell any asbestos-containing products without Government permission.
25. PORTUGAL	See column (4).		Decree Law No. 479/85 dated 13 Nov. '85 - Conforms with ILO Convention 139.

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26. SINGAPORE ++	Factories (Asbestos) Regulations 1980 - Effective 15 May 1980.	TLV's not prescribed in the Regulation, but in a Code of Practice issued by the Ministry of Labour a TLV of 2.0 f/ml for all types is recommended.	a. Notification of asbestos process required. b. Exhaust ventilation equipment or protective equipment required c. Medical examination required prior to employment and every subsequent 12 months. d. Persons under 18 years of age not permitted to be employed where asbestos dust could be present.
27. SOUTH AFRICA	Dept. of Mineral & Energy Affairs Dept of Manpower <u>Draft</u> Asbestos Regulations (based to large extent on EEC proposals - see Serial 1)	2.0 f/ml - Mining & Milling 1.0 f/ml - Manufacturing No discrimination Action Level: 0.25 f/ml for all types	- Measurements by RIM 1 method - Spraying prohibited - Dust monitoring once a month where 0.5 f/ml exceeded. - All waste to be recycled where practicable - All asbestos-containing products to be labelled.
28. SPAIN	Revised Asbestos Regulations Promulgated 7 November 1984	<u>Asbestos</u> (excl. Crocidolite) from 1.1.87 - 1.0 f/ml <u>Crocidolite</u> from 1.1.87 - zero (i.e. prohibited)	May '89 - A Bill of Law submitted for comment incorporating Directive 87/217/EEC (see Serial 1(4))

Index of Abbreviations

1. f/ml = Fibres per millimetre (For consistency of presentation the expression f/ml is used throughout.
f/ml = f/cc = f/cm³ = f/cm³).
2. A/C = Asbestos-Cement
3. TLV = Threshold Limit Value
4. TWA = Time Weighted Average
5. mg/m³ = Milligrams per cubic metre
6. f/m³ = Fibres per cubic metre
7. DIY = Do It Yourself
8. RTM = Recommended Technical Method
9. Reg = Regulation
10. μ m = Micrometre
11. g/cm³ = Grams per cubic centimetre
12. MMF = Man Made Mineral Fibre
13. f/cc = Fibres per cubic centimetre
f/cm³ = Fibres per cubic centimetre
f/cm³ = Fibres per cubic centimetre

AIA/12/1/REG

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