Annex A. Background level of fibres found in school buildings and colleges in the UK, Europe and the US (table adapted from WATCH Annex 4, October 2010)

Study	**No of Buildings or people (air samples)**	**Type of building or person sampled**	**Arithmetic Ave Indoor in Asbestos Containing Building, expressed as f/ml, s/cm^3 or ng/m^3**	**Arithmetic Ave Outdoors, expressed as f/ml, s/cm^3 or ng/m^3**	**Comments**
HEI (1991)	48 (398) Non litigation studies	US school buildings and a few colleges	0.00051 f/ml	~ 0.00001 Rural ~0.0001 urban	
HEI (1991)	171 (1008) Litigation studies	US school buildings and a few colleges	0.00011 f/ml	0.00005 f/ml	
Campopiano et al. (2004)	59 (132)	Italian School during normal occupation	83% < 0.0004 f/ml Max 0.0022 f/ml Ave ~ 0.00025 f/ml		
Lee and Van Orden (2008)	317 (1615)	US School during normal occupation	0.00016 f/ml or 3.36 ng/m^3	0.00003 f/ml or 0.79 ng/m^3	
Schneider et al. (1996)	5(40)	School Children (13-14 yrs)	0.000044 f/ml		Fibres found but no materials containing asbestos in any building
Burdett et al (2009)	7 (28)	UK School with CLASP construction during normal occupation after remediation work	<0.00005 f/ml		
Burdett et al (2009)	1 (8)	Ex -School building, now office (CLASP contruction) with normal occupation before remediation	<0.00002 f/ml		5 week continuous monitoring

Study	**No of Buildings or people (air samples)**	**Type of building or person sampled**	**Arithmetic Ave Indoor in Asbestos Containing Building, expressed as f/ml, s/cm^3 or ng/m^3**	**Arithmetic Ave Outdoors, expressed as f/ml, s/cm^3 or ng/m^3**	**Observations**
Burdett and Jaffery, (1986)	4 (36)	UK schools	TEM average asbestos fibre level for the 4 schools was <0.00078 f/ml. Individual data from one school with some damaged asbestos evident, levels ranged from <0.003 f/ml to 0.012 f/ml with an average of 0.002 f/ml.		Sealed sprayed amosite and chyrsotile asbestos on the ceilings with either some or slight damage
Corn et al. (1991)	71 (473)	US schools	0.02 s/cm^3 for total structures and 0.00023 for structures ≥ 5 μM	0.002 s/cm^3 for total structures and 0.0 for structures ≥ 5 μM	
Nicholson et al. (1979)	10 (27)	US schools	Average of 217 ng/m^3, ranged from 9 ng/m^3 to 1950 ng/m^3	Average of 14 ng/m^3, ranged from 3 to 30 ng/m^3	Schools selected for study based on presence of visible damaged asbestos
Constant (1983)	25 (31 outdoor samples, 31 indoor control samples and 54 indoor contaminated samples)	US Schools	53 ng/m^3 for indoor control areas and 179 ng/m^3 in areas of the schools with asbestos surfacing material.	6 ng/m^3	Schools randomly selected but known to contain asbestos surface material

Study	No of Buildings or people (air samples)	Type of building or person sampled	Arithmetic Ave Indoor in Asbestos Containing Building, expressed as f/ml, s/cm^3 or ng/m^3	Arithmetic Ave Outdoors, expressed as f/ml, s/cm^3 or ng/m^3	Observations
IOM report (2008)	1 (33)	UK school, closed after discovery that asbestos insulating boards (AIB) had been removed without proper precautions by a contractor in 2004	Majority of samples had less than the lowest detectable concentration of < 0.01 f/ml. 2 samples gave readings of 0.011 f/ml and 0.05 f/ml. 4 samples showed conc between 0.013 f/ml and 0.02 f/ml in areas of aggressive disturbance in areas close to windows.		.
IOM report (2009)	1 ()	UK school	Background fibre concentrations were determined as 0.02 f/ml as analysed by PCM		Initial background results by First Order Red during sealing treatment of the AIB in the cupboards in a classroom.
IOM report (2009)	1()	UK school	Background fibre concentrations were <0.01 f/ml as determined by PCM.		Background levels were determined in classrooms from cupboards containing asbestos.