

AFRICA - Round 46 Summary Report

Round 46 of the AFRICA international reference scheme for asbestos fibre counting took place between August 2011 and January 2012, with 26 laboratories from 13 different countries participating (Fig.1). Results were received from all the 26 laboratories.

Reference samples

The AFRICA reference samples comprise a mixture of asbestos fibre types and densities. All samples have been collected as air samples on membrane filters and are mounted on glass microscope slides. Each reference sample has an assigned value (or *reference count*), which is the *median of at least 15 previous evaluations* from fibre counting laboratories.

Organisation of rounds

In the scheme, batches of samples are circulated around groups of participating laboratories. Each batch consists of eight reference samples, plus two "candidates" (new samples included to obtain enough counts to calculate a stable reference count). Each laboratory evaluated one batch of samples during the round. Unfortunately, 1 reference slide was broken during this round, so one laboratory counted 7 reference samples only.

Performance criteria

Individual reports showing results in relation to the reference counts for the reference samples have already been sent to each participant. The usual criteria have been applied to the results: each laboratory has been given a rating of 1 (best), 2 or 3, depending on how well its counts agree with the reference counts. Ratings are a summary of how many of the counts fall within the performance bands shown in Fig.2.

Fig.1: Origin of labs participating in Round 46

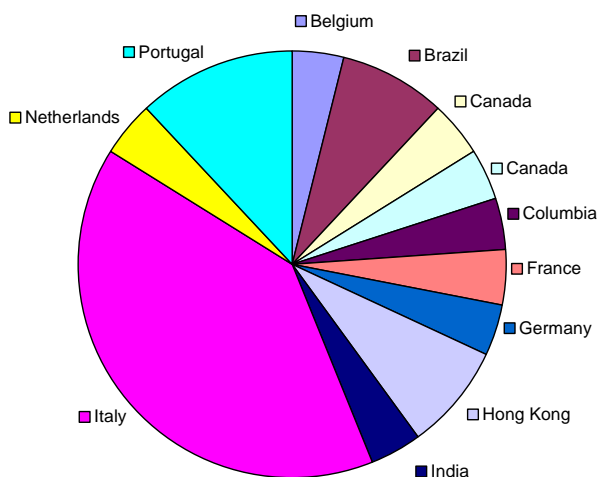
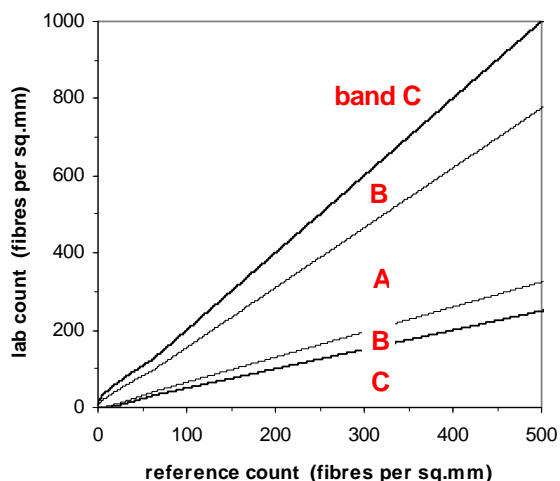


Fig.2: Performance bands for counts on slides



A rating of 1 or 2 is normally regarded as satisfactory counting performance, while a rating of 3 should be considered unsatisfactory.

Comparison with previous rounds

Table 1 (overleaf) compares the performance ratings obtained by laboratories who participated in both Rounds 45 and 46. As on previous rounds, most laboratories maintained rating 1 performance. Four laboratories improved, demonstrating a performance improvement from a 2 (satisfactory) rating to a 1 (good) rating. Only two laboratories worsened this round from a '1' (good) rating to a 2 (satisfactory) rating. Of the eight laboratories who did not participate last round, four received a 1 (good) rating. Only one laboratory this round received the unsatisfactory rating '3'.

The overall performance of AFRICA members over 10 years is shown in Fig. 3 (overleaf). The percentage of laboratories with '1' ratings have stayed approximately the same as last round, while a higher percentage of laboratories achieved a '2' rating rather than a '3'.

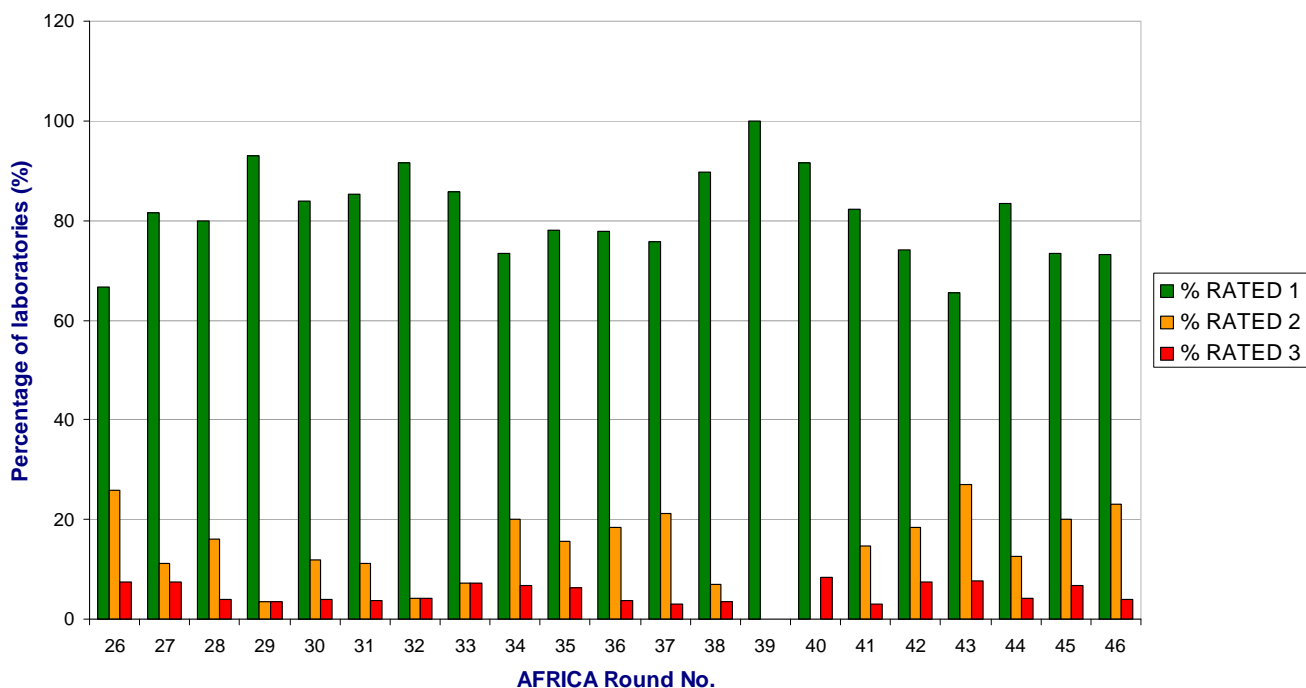
A word of encouragement...

Dr Alan Jones, Head of Proficiency Testing at IOM, commented: "Reliable measurements of asbestos fibre concentrations are an important step in the prevention and control of exposure and thereby asbestos-related disease. It is encouraging to see so many laboratories from around the world actively monitoring and working towards improving their fibre counting performances through participation in AFRICA."

Table 1: Comparison of AFRICA ratings between Rounds 45 and 46

		Round 46 rating				TOTAL
		1	2	3	did not participate in Rd 46	
Round 45 rating	1	11	2	0	8	21
	2	4	1	0	1	6
	3	0	0	0	0	0
	did not participate in Rd 45	4	3	1	-	8
TOTAL		19	6	1	9	35

Fig.3: AFRICA performance ratings since Round 26



For further information on the AFRICA Scheme, please contact the Scheme Coordinator:
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