

Building Metrication News

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This section appears in the fourth issue of 'Building' each month, and gives current news and information on metrication, as well as providing a forum in which the ramifications of the change to metric can be freely discussed. It is published in association with the Modular Society.

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METRIC MONTH

BSI, Metric Change and Money

It is not unnatural, when the metric change programme has been underway for some time and we have each begun to plan our part in the change in some detail, that we should start counting the cost. Whether the result should be a matter for surprise is another matter. But estimates have an uncanny habit of growing, something we are fairly used to in this industry. Certainly the subject has provided ample material for speakers and writers alike, particularly the pessimists, over the last few months. One thing is certain, and that is that the construction industry wants reassurance that the country as a whole is going metric and that having led the change it is not going to be left in isolation.

It is not, however, the purpose of this note to add to the guesstimates of the cost to the industry as a whole. But rather to consider the plight of one organisation in particular, the British Standards Institution. BSI holds a unique position as the focal point in planning the change. It is also an organisation partly supported by industry and partly by government, where industry can ensure that its opinions are heard. Since it is industry that at least initially has to pay, it is particularly vital that we maintain our stake in BSI, but it would seem that we are far from willing to pay our share.

The work of BSI is certainly well known to its many hundreds of committee members and perhaps due to its part in metric change it is getting known by more and more people. Standards are playing an increasingly significant part in industrial activity and over the next few years virtually every existing building standard will need to be revised and many new ones prepared. This in itself is a gargantuan task and on the efficiency with which it is carried out depends much of the success of metric change. It is often said that the speed of change will greatly depend on the supply of metric components. Production is dependent on standards and until these are ready the industry and each one of us will be unable to fully exploit the change.

But apart from the production of standards it is part of BSI's job to programme and progress the change and to publicise it. Part of this work is done in conjunction with the Building Centre through its pool of speakers. These speakers, of whom there are about 120, have so far given over 400 lectures throughout the country. They are really the men in the field, who need all the latest publications and information. But a rather pathetic tale emerged at the re-briefing

of speakers earlier this month. There were complaints that publications were not reaching them and that this was due to the fact that BSI was in no position to deal with these essentials.

Well, who pays for BSI? BSI activities are financed in three ways:

- 1) By contributions from industry and the professions.
- 2) By government who pay a pound for every pound from the private sector.
- 3) By sale of publications, but this apparently barely covers the cost of printing and distribution.

In addition there are BSI's testing and certification services. These are self-supporting but non-profit making.

Government did provide a small additional contribution as an incentive to industry to increase its normal (already low) contributions to cover metric change work. For over a year now BSI has been campaigning for additional funds. The result has been to say, at the most, disappointing. Increased contributions from the construction industry have yet to pay the costs involved in canvassing. Does this indicate that our metric change is being paid for by other industries? If so, for how long can such a state of affairs persist before someone wakes up to the fact?

Industry's Contribution

Industry's contribution to BSI at present is largely in the form of attendance at meetings and expert advice. Both are generously given. But BSI is mainly a secretariat providing essential standards for industry and the contributions of time and advice will be nullified if staff support cannot be provided.

What needs to be done? Presumably it is within the realms of possibility that BSI could be nationalised. But what chance would there be of industry's voice being heard then? Any further contribution from government might also bring with it a diminution of BSI's independence and surely this is undesirable. The unwelcome but only solution is that industry should increase its contribution in a big way, bearing in mind that the government will contribute pound for pound. A good all round increase on our side therefore would be effectively doubled, and might give BSI the sort of financial backing to enable them to do their job without worrying over where the next penny has to come from. The fact is until they are given some elbow room financially we can hardly expect the best service possible from them, and with the complications of the metric change we can do with nothing less.

BSI's canvassing has not been successful. Perhaps it would have a greater effect if everybody who made use of standards, or devoted part of their time to BSI work, were to find out to what extent they and the BSI were being backed up financially by their own professional or trade organisation.



The Metric Change

10. THE TIMBER TRADE FEDERATION: SOFTWOOD SIZES

The Timber Trade Federation of the UK says that from 1970 softwoods will be imported into the country in a new range of sizes in metric measurement.

Following a series of international and domestic conferences, agreement on sizes has been reached between major softwood producing countries and principal European importing countries, including the UK.

It is anticipated that the softwood shippers will be producing these new sizes for the 1970 shipping season and that the building industry here will be ordering in metric sizes in that year.

The schedule below shows the basic range of new sizes to be imported, representing a substantial reduction on the present imported range. Rationalisation of sizes, with a view to achieving greater economy, had been under discussion in the timber trade for many years. The need to change to metric measurement has provided the opportunity of achieving this objective at the same time.

The Metric Change

11. THE STEEL REINFORCEMENT INDUSTRY

With the help of the British Standards Institution, the steel reinforcement industry has approved the adoption of a programme for the manufacture and supply of metric sized steel reinforcement. The programme and tables were drawn up by the British Light Steel Association, the Concrete Reinforcement Steel Association and the Reinforcement Manufacturers' Association in consultation with users and suppliers. In all, 13 bodies were active in the preparation of the programme and related substitution tables.

Early action on the part of the steel reinforcement industry has been taken in anticipation that architects and engineers will rapidly implement the programme for the change to metric in the construction industry. Manufacturers, suppliers and users of steel reinforcement all believe that its early availability in metric sizes will help designers to work in metric and that the rationalisation achieved could offer substantial benefits. The variety of preferred sizes has been reduced by 28% in the metric table.

Basic Sizes for Sawn Softwoods

| Thickness | Width | | | | | | | | | |
|-----------|-------|-----|-----|-----|-----|-----|-----|-----|-----|-----|
| | 75 | 100 | 115 | 125 | 150 | 175 | 200 | 225 | 250 | 300 |
| 16 | x | x | | x | x | | | | | |
| 19 | x | x | | x | x | | | | | |
| 22 | x | x | | x | x | | | | | |
| 25 | x | x | | x | x | x | x | x | x | x |
| 32 | x | x | x | x | x | x | x | x | x | x |
| 40 | x | x | x | x | x | x | x | x | x | x |
| 45 | x | x | x | x | x | x | x | x | x | x |
| 50 | x | x | x | x | x | x | x | x | x | x |
| 63 | | x | | x | x | x | x | x | | |
| 75 | | x | | x | x | x | x | x | x | |
| 100 | | x | | | x | | x | | x | x |
| 150 | | | | | x | | x | | | x |
| 200 | | | | | | | x | | | |
| 250 | | | | | | | | | x | |
| 300 | | | | | | | | | | x |

Thicknesses and widths in millimetres

Notes: Thicknesses from 16mm to 75mm inclusive represent the usual range of European production though the 45mm is likely to be a Canadian thickness for the time being.

Similarly the basic European widths are shown in a range of 75mm up to and including 225mm.

Outside this 'box', sizes would probably have to be obtained from, principally, Canada and Brazil.

Lengths: These would begin at 2.40 metres and would rise by stages of 0.30 metres up to 6.30 metres.

forcement industry has been taken in anticipation that architects and engineers will rapidly implement the programme for the change to metric in the construction industry. Manufacturers, suppliers and users of steel reinforcement all believe that its early availability in metric sizes will help designers to work in metric and that the rationalisation achieved could offer substantial benefits. The variety of preferred sizes has been reduced by 28% in the metric table.

The programme is as follows:

Before 1 March 1969 no metric sizes will be rolled as standard.

After 1 June 1969 metric sizes only will be rolled as standard.

After 1 January 1970 metric sizes only will be supplied as standard.

After 1 March 1969 the suppliers will have

the option of supplying either; imperial sizes called for or the substitute metric sizes; or, conversely, the metric sizes called for or the substitute imperial sizes. The programme is sufficiently flexible to enable a smooth transition to be effected between the supply of 1in. sized bars to that of metric sized bars. It is emphasised that the basis of sale will be on the actual sizes supplied and no change in normal commercial procedures is envisaged.

Substitution Tables

The metric units used as far as length is concerned will be expressed in millimetres to the nearest 5mm. and the standard length will be 12,000mm. or 12m. The density of steel will be taken as exactly 0.00785kg./sq.mm./m.

SUBSTITUTION TABLE A (IMPERIAL) FOR OPERATION ON AND FROM 1 MARCH 1969

| Design imperial sizes | | | | Substitute metric sizes | | | |
|-----------------------|----------------------|-------------------|----------------------|-------------------------|----------------------|----------------------------|----------------------------|
| Round range bars | | Square range bars | | | | | |
| Size in. | Area mm ² | Size in. | Area mm ² | Size mm | Area mm ² | Difference on 2nd column % | Difference on 4th column % |
| $\frac{1}{2}$ | 31.7 | 5g | 29.0 | 6 | 28.3 | -10.7 | -2.4 |
| $\frac{5}{16}$ | 49.5 | $\frac{1}{8}$ | 63.0 | 8 | 50.3 | +1.6 | -20.2 |
| $\frac{3}{8}$ | 70.9 | $\frac{5}{16}$ | 63.0 | 10 | 78.5 | +10.7 | +24.6 |
| $\frac{7}{16}$ | 96.8 | $\frac{3}{8}$ | 90.7 | 12 | 113.1 | +16.8 | +24.7 |
| $\frac{1}{2}$ | 126.7 | $\frac{7}{16}$ | 123.5 | 12 | 113.1 | -10.7 | -8.4 |
| $\frac{5}{8}$ | 198.6 | $\frac{3}{4}$ | 192.9 | 16 | 201.1 | +1.3 | +4.3 |
| $\frac{3}{4}$ | 286.5 | $\frac{11}{16}$ | 277.8 | 20 | 314.2 | +9.7 | +13.1 |
| $\frac{7}{8}$ | 387.1 | $\frac{3}{4}$ | 362.9 | 25 | 490.9 | +26.8 | +35.3 |
| 1 | 506.7 | $\frac{7}{8}$ | 494.0 | 25 | 490.9 | -3.1 | -0.6 |
| $1\frac{1}{8}$ | 642.4 | 1 | 645.2 | 32 | 804.2 | +25.2 | +24.6 |
| $1\frac{1}{4}$ | 791.7 | $1\frac{1}{8}$ | 816.5 | 32 | 804.2 | +1.6 | -1.5 |
| $1\frac{1}{2}$ | 1140.1 | $1\frac{1}{8}$ | 1219.8 | 40 | 1256.6 | +10.2 | +3.0 |
| $1\frac{3}{4}$ | 1551.8 | | | 50 | 1963.5 | +26.5 | |
| 2 | 2026.8 | | | 50 | 1963.5 | -3.1 | |

SUBSTITUTION TABLE B (METRIC) FOR OPERATION ON AND FROM 1 MARCH 1969

| Design metric sizes | | | | Substitute imperial sizes | | | |
|---------------------|----------------------|------------------|----------------------|---------------------------|----------------------|----------------------------|----------------------------|
| | | Round range bars | | Square range bars | | | |
| Size mm | Area mm ² | Size in. | Area mm ² | Size in. | Area mm ² | Difference on 2nd column % | Difference on 2nd column % |
| 6 | 28.3 | $\frac{1}{4}$ | 31.7 | 5g | 29.0 | +12.0 | +2.5 |
| 8 | 50.3 | $\frac{5}{16}$ | 49.5 | $\frac{5}{16}$ | 63.0 | -1.6 | +25.2 |
| 10 | 78.5 | $\frac{3}{8}$ | 70.9 | $\frac{3}{8}$ | 90.7 | -9.7 | +15.5 |
| 12 | 113.1 | $\frac{1}{2}$ | 126.7 | $\frac{7}{16}$ | 123.5 | +12.0 | +9.2 |
| 16 | 201.1 | $\frac{5}{8}$ | 198.6 | $\frac{3}{4}$ | 192.9 | -1.3 | -4.1 |
| 20 | 314.2 | $\frac{3}{4}$ | 286.5 | $\frac{11}{16}$ | 277.8 | -9.1 | -11.6 |
| 25 | 490.9 | 1 | 506.7 | $\frac{3}{4}$ | 494.0 | +3.2 | +0.6 |
| 32 | 804.2 | $1\frac{1}{8}$ | 791.7 | $1\frac{1}{8}$ | 816.5 | -1.6 | +1.5 |
| 40 | 1256.6 | $1\frac{1}{2}$ | 1140.1 | $1\frac{1}{8}$ | 1219.8 | -9.3 | -2.5 |
| 50 | 1963.5 | 2 | 2026.8 | | | +3.2 | |



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WORKING FOR THE CHANGE

One of the most active figures presiding over our change to metric is Thomas Sibthorp. Early involvement with dimensional co-ordination (he sat on the



original BSI Modular Committee B75) and wholehearted advocacy of a policy he believes in has landed him on four of the Functional Group panels—including the chair of No. 5 panel on fixtures, furniture and

equipment—that are now getting down to studying basic spaces.

His working life began on the building site where he specialised in carpentry and joinery. As an architect and surveyor he finds his practical beginnings very useful and although he does not advocate specialising in one trade, his knowledge of joinery has led to a 15-year association with the British Woodwork Manufacturers Association as their advisory architect. This also is another reason, since timber plays an important part in building structure, for his involvement with the functional group panels.

Like Hugh Clamp, chairman of group No. 2 on external envelope and interviewed by us last month, Mr. Sibthorp thinks the panels are making very good progress. About No. 5, the one he chairs, he says they have gone a long way with furniture and industrial design. He is open minded on whether they will be able to put forward matrices to give industry a lead in the required time but, again like Hugh Clamp, he adopts the empirical approach—'at least let us get started and iron out the difficulties as we go along.'

One of the difficulties is that, until metric takes over completely, we have to keep imperial going, so that any action we take at the moment is going to be an addition, i.e., extra stocking requirements, new jigs, etc. 'We should, therefore, as far as possible try to keep down the number of new sizes.'

Affect on Costs

How will all this affect costs when the changeover is made? Surprisingly, Thomas Sibthorp does not go along with the general assumption that initially costs are bound to rise. If demand were large enough, quick enough, he says, then it is possible that costs could go down. 'After all the combination of variety reduction and longer runs is designed to reduce production costs and site time. If it doesn't do these things, then the whole purpose of the exercise is invalidated.'

With certain components, he concedes,

there will be greater problems—structural steel; pressed bricks—if a change is made in size; and even in the timber trade logs of the softwood type are easier cut in inches than in millimetres. But manufacturers will probably find that overheads can be spread as demand increases with variety reduction.

Another assumption that Mr. Sibthorp questions is that there will necessarily be a high percentage of error resulting from the initial use of metric. Experience in other countries who have made the change such as India and Australia (who changed to decimal currency), suggests that this needn't happen. His own firm, The Sibthorp-Meeking Architects Group Partnership, is currently doing a factory in Woolwich in metric measurement without any problems.

'But it is essential that only one method of measurement is used. That is why the Government's negative attitude over the commercial section is so disappointing. Unless orderly change, under an overall metrication board, takes place, it will mean that the average worker will be using litres of water on site to mix concrete and drinking pints of beer in his local at night. If a schizophrenic attitude like this is engendered, the number of errors will go up and so will the costs of going metric.' But Mr. Sibthorp will be surprised if the Government, having gone so far to promote metric, doesn't go the whole way in tying up the loose ends.

Government Encouragement

To encourage the change in the building industry the Government have already acknowledged that they must be the prime movers. It will be up to them to push metric projects through on the public sector and this they have taken steps to do providing it doesn't cost any more. In the private sector the firms who were likely to change first were the larger concerns who would be in a position to peel off sections of their staff to work continuously in metric.

On the international implications, because we were allying dimensional co-ordination to our change to metric, most nations in Europe were looking to us to give a lead. This was evident, said Mr. Sibthorp, at a meeting of the ISO technical committee 59—buildings, held in Brussels in 1967. A sub-committee, for which the UK supplied the Secretariat, was formed to look at dimensional co-ordination. It found that, with no overall integration, each industry was going its own way with the result that there was a good deal of chaos. We were now setting out to conduct an orderly change and it is hoped that, at a meeting in Milan in October, the work of the committee will be discussed and further progress made.

In this country the three essential documents are BS 4011 on Preferred dimensions; the British Standard for Controlling Dimensions, which is expected to

be published fairly soon; and the Boundary dimensions now being hammered out by the Functional Group panels. Given these, plus Government co-operation, plus a sensible attitude on the part of industry in preparing staff and workers for the change, then the changeover to metric need not be such a traumatic experience as some people were now expecting.

PUBLICATIONS

Metric Building Regulations

The Ministry of Housing and Local Government has published a booklet, 'The Building Regulations 1965: Metric Equivalents of Dimensions' (HMSO, price 7s. 6d.) giving the metric equivalents of all dimensions and measurements quoted in the Building Regulations 1965. This is to assist designers, building regulation authorities and others who are working in metric values. In due course the imperial dimensions and measurements in the Building Regulations (and in other relevant Statutes and subordinate legislation) will be changed to metric values, which will normally be rounded values and not the exact metric equivalents of the present imperial values. Proposals for such rounded metric values will be issued for comment before incorporation in the legislation.

In the meantime, where the present requirements of the Building Regulations prevent the use of a metric dimension which is otherwise considered desirable (e.g., to facilitate dimensional co-ordination in buildings) the Ministry is prepared to consider the possibility of an ad hoc earlier amendment of the regulations.

If any organisations or bodies wish to express views on what rounded metric dimensions should eventually be embodied in particular sections of the regulations they are invited to write to the Ministry.

Metrication Programming

A critical path analysis which can be used by organisations in the construction industry as a guide when planning their metric changeover activities has been produced by the National Building Agency in conjunction with the British Standards Institution. Planning within the framework of this analysis will enable detailed change schedules to be worked out in different sectors of the industry, which will co-ordinate with each other and with the general requirements of the overall programme given in PD 6030, Programme for the change to metric in the construction industry.

Only key dates are identified on the network, as activity times can vary considerably according to individual circumstances, and it is left to each organisation to decide its own activity times according to its own metric situation.

The network illustrates the inter-relationship



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ship of activities within and between the following sectors; government departments and local authorities; clients administration; design team (architects and engineering, surveyors, quantity surveyors and cost team); BSI, industrial training boards and professional associations; trade unions; manufacturers and distributors; contractors, sub-contractors and direct labour organisations.

This critical path analysis is available as a folder (PD 6421, price 4s. plus postage 6d. to non-subscribers) or in the A1 size (PD 6422, price 6s. plus 9d. postage to non-subscribers). The larger size is suitable for use as a working network on which activity times can be inserted enabling a critical path to be defined.

Copies may be obtained at the above prices from the BSI Sales Office at 101/113 Pentonville-road, London, N1. Further information on network programming may be obtained from the NBA.

Standard Method of Measurement

The Standing Joint Committee has completed the preparation of the Metric Editions of the Standard Method of Measurement of Building Works and the Code for the Measurement of Building Works in Small Dwellings. Publication of both documents is planned for July. Copies will be obtainable from the RICS at 12 Great George-street, London, SW1, or the NFBTE at 82 New Cavendish-street, London, W1.

Standard Method of Measurement of Building Works, 5th Edition (Metric), sells at 25s. post free. Students will be able to obtain copies at the reduced rate of 20s. through their colleges.

Code for the Measurement of Building Works in Small Dwellings, 2nd Edition (Metric), is 7s. 6d. post free.

Gas Council Booklet

A booklet on metrication, published by the Gas Council, is based on an article by Dr. H. M. Glass, Technical Director BSI, specially written for the Council's journal 'Flambeau.' It incorporates a series of illustrations to give the general reader a clearer appreciation of metrication, and tables of some useful conversion factors and symbols have been added. The units have been selected to be of particular use to engineers.

METRICATION INDEX

An index of references to metrication published in 'Building' since Building Metrication News last appeared.

Eire Government is to establish a committee to help advise the Irish construction industry on the change to metric. (14 June, p.179.)

An MPBW working party has been established to investigate aspects of the metric changeover not previously covered by the BSI. (21 June, p. 103.)

NEWS FROM THE INDUSTRY

Plan to Reduce Costs

Careful planning can undoubtedly reduce the cost of Britain's changeover to the metric system, G. A. Oscroft, technical adviser, Standing Joint Committee on Metrication, Ministry of Technology, said when addressing a metrication symposium held by the Edinburgh Junior Chamber of Commerce. He said plant might have to be replaced as a consequence of the switch. New tools, gauges and measuring instruments would be required, some dual stocking would be necessary and staff might have to be re-trained.

But the actual cost of the changeover would depend very much on the timing, and coincidence with normal obsolescence of plant and equipment. To a large extent these variable factors would be within the control of individual manufacturers.

Mr. Oscroft said there were no special government financial arrangements to meet costs from public funds, but he pointed out that the usual tax allowances for premature write-off of plant and equipment would apply in addition to the grants available under the investment grant scheme.

Cost Implication for Builders

A warning on the cost implications for the building industry of the projected changeover to the metric system was sounded by G. A. Britton, chairman of the NFBTE's metric sub-committee and a technical director of John Laing Construction Ltd. Speaking at a refresher course for the pool of lecturers on the industry's metric change at the Building Centre in London, Mr. Britton said that the technical aspects of the change had been fully considered by the industry. The aspect of the changeover which had, up to now, received less attention was that of what effect the adoption of the metric system and dimensional co-ordination would have on builders' costs.

In Mr. Britton's view it is inevitable that the industry will be faced with initial short-term costs in changing to metric but that whether it will bring the anticipated long-term benefits is a matter for some conjecture. The building industry, said Mr. Britton, was 'committed to a programme of change involving inescapable cost, but without even the sketchiest calculations of whether the return will pay for the cost and what the timing of the return will be.'

Mr. Britton felt that a similar situation applied to industry as a whole in relation to the introduction of the metric system. 'We are becoming committed

industry by industry to a metric change and we expect, indeed we think it a necessary feature of the change, that the Government will propose a total commitment in all aspects of our national life.' But, Mr. Britton asked: 'Has the balance sheet been drawn up and do we know when the pay-off will be?' The cost, which could be very large indeed, would have to be borne by the community, either by the industries concerned, the client or the Government.

Mr. Britton ended with a plea for realism by saying that, so far as the building industry was concerned, contractors should 'act wisely' in regard to the changeover. The industry was increasingly coming round to the view 'that the cost effect of each step in the programme should be evaluated against the possible return and should be considered in the light of the external circumstances of Government action and policy. This is not an attempt to baulk the change but merely to reduce by every reasonable means the economic damage it might do. The alternative, to charge merrily on, could mean economic chaos.'

Australian Metric Inquiry

The report of the select committee appointed by the Australian Senate in April 1967 to inquire into the practicability of the early adoption of the metric system was presented on 29 May. To give senators an opportunity of studying the document, which covers more than 130 pages, debate was adjourned.

The committee unanimously recommended the early adoption of the system and proposes it be effected over a period of about ten years. Senator Laught, chairman of the committee, said this had been the overwhelming tenor of the advice submitted to the committee. Decimal currency conversion had set many people thinking about metric and the world trend was so clear it was now very widely accepted that it was inevitable the change would occur in Australia sooner or later. 'The committee was unable to arrive at a meaningful estimate of the cost of conversion, which would be greatly affected by the conversion programme adopted,' he said. 'Experience in countries which have already converted has been that by careful planning and the best use of the natural obsolescence of equipment and designs the cost can be very greatly reduced. The setting up of a Metric Conversion Board has been recommended as the central body to provide overall co-ordination of the change, but the committee believes much of the detailed planning can best be done by the individual sectors of industry and the establishments themselves.'

Senator Laught said he was unable to say whether, if the committee's recommendations were adopted, any provision would be made for compensation for conversion costs. The committee had con-

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cluded this would be a policy matter for determination by the government, although the report indicated that in Japan, the UK and South Africa no direct compensation had been or was being paid. 'But there is no doubt in the committee's mind that the ultimate benefits will greatly exceed the costs of conversion,' he said.

Canadian Thoughts on Metric

With the UK and South Africa with metric programmes in front of them and Australia likely to follow suit, Canada and the US will soon be a foot-pound island in a metric world. According to Robert F. Legget, in an article released by the Division of Building Research, Ottawa, Canada, this makes it inevitable that Canada will also go metric eventually, especially as she is now the fourth trading nation in the world.

It is generally assumed, continues Mr. Legget, that Canada will have to follow the lead of the United States in this, as in so many other matters of business and economics. This he thinks is a very questionable assumption. But even in the US, the Ford Motor Company has already let it be known that it is going to convert to metric measurement, although without yet saying when. Clear indication of US thinking on this matter was the decision of the American Society for Testing and Materials five years ago to include metric units in all its many Standards. Progress in giving metric units in addition to foot-pound units, when necessary, in the 27,500 pages of the ASTM Book of Standards has been exceptional; metric units will soon be found in all ASTM documents. Other engineering societies have followed suit, but the ASTM example has yet to be followed in Canada.

The Canadian construction industry, says Mr. Legget, may think that metrication is a long way away and so is something that need not be considered seriously for a long time. But the lumber industry is already giving serious consideration to the implications of the metric system since such a large part of its production is exported to Europe. Also Canada has a special advantage when conversion does come about in that so many of those working in construction, both in the design office and on the job site, have come to Canada in recent years from metric countries.

Turned Down

Compensation for exceptional costs incurred in the switch-over to decimal currency has been denied 67 organisations, firms and individuals by the Decimal Currency Board. The CBI have reacted by declaring that the demands to be satisfied are extremely difficult. An early meeting of their decimalisation panel is to be called and representations are likely to be made to the board. The Government's attitude on compensation is that payments, generally speaking,

should only be made under special circumstances. As a result the board are guided by the following criteria with regard to costs:

- 1 They must be necessarily and directly incurred as a result of decimalisation and would not otherwise be incurred;
2. They must be clearly identifiable and measurable;
3. They must be manifestly disproportionate, after taking into account all tax allowances, both to the costs incurred generally by organisations and to the benefits deriving from the changeover;
- 4 They must be for the conversion or replacement of machines bought before July 1967;
- 5 They must extend so far beyond the normal financial fluctuations and hazards of business that they cannot be readily absorbed in normal operating costs.

Delay Retail Change

The changeover to the metric system for weights and measures should be delayed until at least 1975, said Alfred Spence, chairman of the Retail Consortium, last week. The Consortium speaks for major store groups in the grocery trade and the co-operative movement as well as many department stores and small traders. Mr. Spence thought that decimalisation, and its inevitable costs, should be absorbed before the much more complicated issue of going metric was tackled.

MPBW Metrication Officer

L. J. F. Stone, FRICS, has been appointed the Ministry of Public Building and Works' Metrication Officer. His task will be to supervise the implementation of the changeover to the metric system within the Ministry. This will include guidance to the Ministry's professional, technical and industrial staff on the use of controlling dimensions, and co-ordinated components. He will also ensure that any necessary training is provided.

Mr. Stone, who is 56, joined the staff of the Ministry of Works in 1941. During the latter years of the war he was engaged in research into non-traditional housing methods and was associated with the development of the temporary housing programme.

Pool of Speakers

Some 100 members of the 'pool' of speakers, set up jointly over a year ago by the BSI and the Building Centre to lecture on metric, met at the Building Centre on 6 June to discuss both past and future activities. K. M. Wood, chairman of the Metric Panel, was in the chair. A number of talks were given covering various aspects of the metric programme with particular emphasis on dimensional co-ordination. It was felt that as advances into the programme were made, the need for more detailed information rather than a general appraisal would be called for, and in view of this

it was decided to hold a further meeting of the speakers later this year.

CITB Training Plans

Announcing CITB training plans relating to metric, A. Bankier, Western Scotland Area Manager, told the national conference of the National Federation of Builders' and Plumbers' Merchants at Gleneagles, last month that the Board would be concerned with re-training people already in the industry. It proposed to arrange three-day courses for supervisory staff. A series of programme learning booklets is in preparation for senior management—those who could least be spared from industry and therefore needed the facility to study the subject in their own time. Other aids in the form of a glossary of metric terms, pocket conversion tables and a series of instructional posters would be available in September this year. Training new entrants to the industry in metric would be the responsibility of the education authorities said Mr. Bankier; that for professional people would rest with the professional institutions.

Partitioning Questionnaire

Concern has been expressed by one of BSI's new Functional Group Panels dealing with metric dimensional co-ordination in the construction industry that manufacturers of partitioning systems are not represented on the panel. It appears that no trade federation or association exists in this important sector of the industry, and the considerable size of the BSI Functional Group Panels does not permit representation by industrial firms.

Some efforts have been made recently to stimulate the partitioning manufacturers into recognising the need for them to make known their views on BSI dimensional co-ordination work in an organised form. So far these efforts have not met with much success, and a questionnaire has been compiled for use in all panels in an endeavour to obtain information from as many partitioning manufacturers as possible. BSI is asking for replies to be submitted as soon as possible.

South Africa Goes Metric

Several major South African industries have already started to use the metric system although it will not be in full use for another decade. Among them are the paint and milling industries. A well-known scale manufacturer in Johannesburg said that the last industries expected to adopt the metric system were the heavy engineering and iron and steel industries which face enormous problems in retooling before conversion could be made.

Millions were being spent by manufacturers of scales, other weighing equipment, packaging and testing equipment to prepare for the day when metrification will be complete.