QUALITY ASSURANCE

by F. Wagenmaker, director of KOMO-Institute for the certification of building materials in the Netherlands.
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Mr. de Wildt just said something about quality control as carried out with the Dutch manufacturers of concrete road paving blocks. I should like to link my contribution up with that of Mr. de Wildt because quality control and quality assurance in themselves also closely link up with eachother. As a matter of fact internal quality control is an essential part of quality assurance!

I have only little time available now to give an extensive lecture on the precise contents of the concepts I was discussing just now. May I refer to my contribution entitled "Development of quality control and certification of concrete road paving blocks in The Netherlands" that has been published as a paper of the second international conference on "Concrete Block Paving". In that contribution I have, among others, set out the origins of the concept of quality assurance and how we interpret it in The Netherlands at the moment.

The quality of the ultimate paving depends on three aspects; namely, the design, the blocks and the laying of the blocks. All three aspects are very important but I shall limit myself to the second aspect: the quality of the concrete road paving blocks. In many countries that quality has been described in a standard describing the requirements and related methods for testing as far as the blocks are concerned. But prescribing a standard is not sufficient for the customer. He wants to be sure that the blocks he is purchasing satisfy the standard. He can do just that by inspecting the batches delivered to him by means of a batch inspection. But for products such as concrete road paving blocks, with many customers, this method is not very economic and thus rendered out of date. Certification of the product is a much better method, in my opinion. That is the most objective and effective and least expensive method to determine that producers supply products satisfying the requirements. And the certification by an independent third party is also based on the quality assurance of the producer that has to apply a quality system ensuring that the products satisfy the requirements set.
This is the best inspection method for the producer as well as the customer. Ensuring good quality will eventually appear to be cheaper than turning out poor quality. Quality pays!

Therefore, it concerns a matter of mentality first of all : the management must become quality conscious whereby not only those matters that are regarded as important profit centers, will be taken up. No, it concerns a total quality control whereby the development, purchasing, manufacturing and the selling phase too will get all the attention. Such a quality policy is based on a total quality control. A familiar statement here is that quality improvement can be achieved for 85% at the management level and for only 15% at the factory floor level.

The attention now focussed on this in many countries is expressed, among others, by a number of publications and standards in the field of quality assurance. A Technical Committee of the International Standardization Organization was also started in this field in 1980. I should like to draw your attention to the international standards coming from that direction.

In the Draft Proposal 9000 I read, for example :
"Quality assurance is : all those planned and systematic actions necessary to provide adequate confidence that a product, process or service will satisfy given quality requirements.

Quality assurance, sometimes written as external quality assurance refers to the activities, procedures and documentations thereof that an external user or customer will require in a supplier's operation in order to provide the customer with adequate confidence that the product will satisfy the user's needs or requirements".

Naturally, the producer should apply Quality Management : managing of all functions and activities necessary to determine and achieve quality. That was already said by Mr. de Wildt also. Internal quality control is naturally an important part of quality management. In this connection I should like to draw your attention to the framework schedule for internal quality control on concrete road paving blocks as we use it in The Netherlands.

This schedule has been added to my paper but can also be inspected in the stand of KOMO and its inspection institute KIWA in this building. You are welcome there to exchange some thoughts with our experts in the field of concrete road paving blocks. The forms used in internal quality control and the certification and, furthermore, some testing equipment will certainly also be interesting to you.

As I said before certification is the coping-stone of the care for quality.
It clearly links up with a) standardization of quality requirements for the product and b) the quality system of the producer.

Also in the field of certification important developments are going on. Within the framework of the ISO the Certico is active to realize the necessary harmonization between the countries. I should like to draw your attention to an issue by the ISO-Certico in co-operation with the United Nations : "Certification, principles and practice," summing up the advantages and disadvantages of the different certification systems, a very useful publication.

The certification of concrete road paving blocks in The Netherlands started in 1967. In close co-operation with the NNI and the Fabes the bases for the certification were developed. Apart from the KOMO general regulations they naturally are the NEN 7000 standard and the framework schedule for internal quality control. The procedure for the application for a 'certificaat' has been precisely described in my paper. When the 'certificaat' has been issued the inspection institute will visit the factory monthly at random times in order to ascertain if the producer maintains its quality system in the agreed manner and continuously supplies concrete road paving blocks satisfying the standard. On each visit the inspector fills in a form recording his findings. The 'certificaten' are printed and each packet of blocks is clearly provided with a black ink stamp.

For the user it is very important to know that the products are supplied under a 'certificaat'. He then knows that an independent institute regularly checks upon that producer so that the chance that he will find a defective product is minimal. If he may indeed chance upon a product not satisfying the requirements the producer, who, it should be remembered, has guaranteed that its products would indeed satisfy the requirements, will certainly want to live up to this guarantee. And the certification institute, in its turns, guarantees that it will remind the producer of its guarantee.
Mister chairman, ladies and gentlemen, I have tried to emphasize to you some outlines of quality assurance as a supplement to my paper. In The Netherlands the concrete road paving blocks industry has been one of the first building products industries that have accepted, early on, the more modern methods of quality control and quality assurance in order to thus contribute to a justified application of this beautiful material. I wish for those producers from other countries who are our guests in The Netherlands this week that they will also succeed in having their products applied succesfully for the benefit of them and for the benefit of their customers. Thank you.