NATIONAL STANDARDS COMMISSION

26 November 1998

Secretary
National Inquiry into Australia's Gambling
Industries
Productivity Commission
PO Box 80
BELCONNEN ACT 2616

Dear Sir

As the Inquiry into Australia's Gambling Industries will be considering regulatory structures I felt I should provide you with a brief submission on discussions that have been held between the National Standards Commission and manufacturers of gaming machines on the establishment of a national certification scheme for gaming machines.

The National Standards Commission is the Commonwealth Authority set up in 1950, following the enactment of national measurement legislation, with responsibility for advising the Commonwealth Government on the legislative scientific and technical needs of the national measurement system.

In 1965 State and Territory Governments agreed to transfer responsibility for the pattern approval of trade measurement instruments to the National Standards Commission. This transfer resulted from the increasing complexity of trade measurement instruments, particularly arising from the introduction of electronic technology, but also from demands from industry for a single approval authority to overcome the inefficiencies resulting from differing requirements and multiple testing. Information about the Commission's pattern approval testing facilities is attached.

The enactment of national measurement legislation in 1948 arose from the Commonwealth's Constitutional responsibility under Section 51 (xv) for weights and measures. Whilst this responsibility extends to all physical measurements it does not cover the operation of gaming machines. However the requirements for the approval of trade measurement instruments, viz. consistency of operation and lack of susceptibility to fraud, are similar to the requirements for gaming machines.

In this regard quite a number of our partner laboratories in Europe are actively involved in the approval and certification of gaming machines.

These include:

12 Lyonpark Road P.O. Box 282 North Ryde NSW 2113 Australia
Telephone (National): (02) 9888 3922 Fax: (02) 9888 3033
Telephone (International): (6 12) 9888 3922 Fax: (6 12) 9888 3033

- The Netherlands Measurement Institute which since 1984 has been involved in the testing of gaming technology (see attached);

- The Physikalisch Technische Bundesanstalt (PTB) in Germany which is responsible for the pattern evaluation and licensing of "cash gaming machines";

- Hungarian National Office of Measures (OMH) which was recently given responsibility for gaming machines (see attached);

- Spanish Centre of Metrology which had just commenced testing gaming machines when I visited them in 1990.

All of these organisations together with NSC are members of the International Organisation of Legal Metrology (OIML), an inter-governmental organisation established in 1955 to harmonise measurement requirements.

The European metrology organisations have all been given responsibility for gaming machines due to their established technical capability and their reputation for impartial assessment.

The Commission has been conducting temperature and electromagnetic immunity testing on gaming machines for commercial test houses for some time and whilst we are prepared to provide such access to our specialised facilities, we believe the priority for both the national and international trade in these machines should be a national system of certification.

Please don't hesitate to contact me if you require any further information on this issue.

Yours sincerely

J Birch AM
Executive Director

Encl

National Standards Commission

Testing and Calibration Facilities

LOAD CELL TESTING FACILITIES

Load cells are tested over a temperature range from –10 to + 40°C. The tests are computer controlled so that test sequences remain constant throughout the ranges of load cells tested.

Most load cells are tested for pattern approval purposes, however standard test sequences may be altered to suit individual performance testing of load cells.

Load cells are also tested to determine the effects of barometric pressure and humidity on their performance at no load.

Load Cells Less than 50 kg

Load cells of less than 50 kg maximum capacity are tested manually.

Load Cells from 50 to 500 kg

The small load cell test facility (see Figure 1) has a capacity range of 50 to 500 kg. It incorporates a lever with selectable lever ratios of 1:1, 2:1 or 5:1.

Load Cells from 600 kg to 50 000 kg

The large load cell facility (see Figure 2) has capacity ranges of:

- 600 to 5 000 kg by dead load; and
- 5 000 to 50 000 kg via a 10:1 lever ratio.

NATIONAL FLOWMETERING FACILITY

Our national flowmetering facility provides traceability for the volume measurement of petroleum products (see Figure 3) and liquefied petroleum gas (see Figure 4). The two facilities are used to pattern approve and to calibrate flowmeters.

Petroleum Products

Flowmeters for petroleum products can be tested and calibrated over flow rates from 7 to 4 000 L/min using two types of hydrocarbon-based test fluids:

- test liquid A has a density of 750 kg/m^3 and a kinematic viscosity of 2.6 mPa.s at 15°C; and
- test liquid B has a density of 842 kg/m^3 and a kinematic viscosity of 6 mPa.s at 15°C.

Figure 1

Liquefied Petroleum Gas

Flowmeters for liquefied petroleum gas can be tested and calibrated over flow rates from 4 to 1 700 L/min using two blends of liquefied petroleum gas. One blend consists mainly of propane and the other is 50% propane and 50% butane.

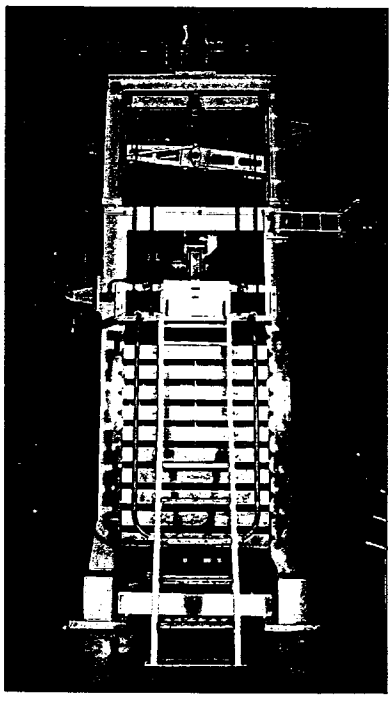


Figure 2

NATIONAL STANDARDS COMMISSION

The National Standards Commission was established in 1950 following enactment by the Commonwealth Government of national measurement legislation. The Commission is responsible for advising the Government on the national measurement system and for coordinating the system.

In 1965 responsibility for the pattern approval testing and certification of trade measuring instruments was transferred from the states to the Commission and since then world-class testing facilities have been established to meet the pattern approval requirements of the International Organisation of Legal Metrology.

Our testing laboratory is accredited by the National Association of Testing Authorities, Australia, and measurements and calibrations are legally traceable to Australian's primary standards of measurement.

We issue:

- certificates of approval;
- performance reports;
- OIML certificates for continuous totalising automatic weighing instruments, automatic catchweighing instruments, load cells, non-automatic weighing instruments, automatic rail weighbridges and measuring systems for liquids other than water;
- Regulation 80 certificates for reference standards of measurement used in the verification/certification of measuring instruments.

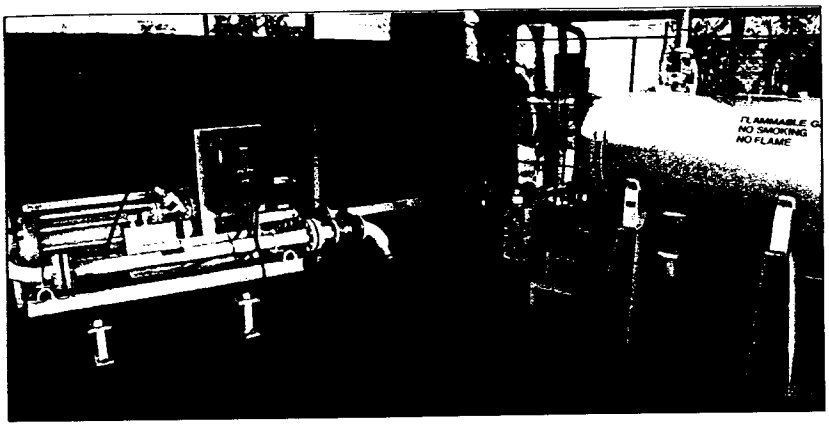


Figure 4

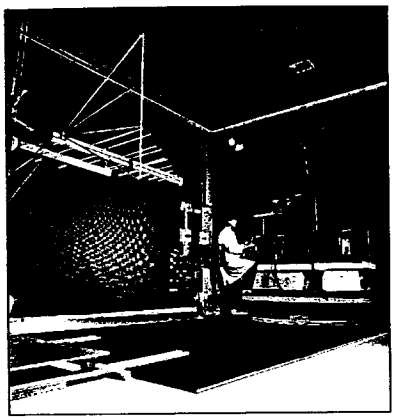


Figure 5

OTHER FLOWMETERING FACILITIES

Water Meters

Water meters can be tested and calibrated over flow rates from 10 to 1 000 L/min.

Thermometers

Thermometers are tested and calibrated over temperatures from –50 to +250°C.

Pressure Gauges

Pressure gauges are tested and calibrated over pressures from 100 to 3 500 kPa.

Figure 3

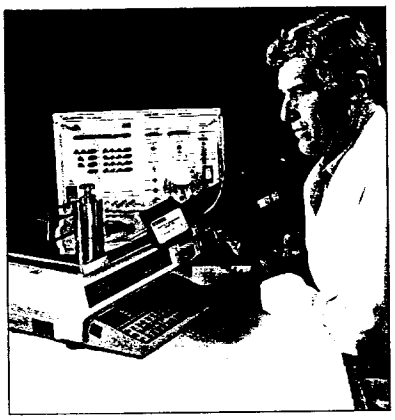


Figure 6

ELECTROMAGNETIC SUSCEPTIBILITY TESTING FACILITIES

We test to standards of the International Organisation for Legal Metrology, the International Electrotechnical Commission (IEC) and the International Special Committee on Radio Interference.

Radiated Interference

Our automated electromagnetic susceptibility facility (see Figure 5) tests the susceptibility of instruments to radiated interference over the frequency range 26 to 1 000 MHz and at field strengths up to 10 V/m (in accordance with IEC 61000-4-3). The anechoic chamber is 8 m long, 6 m wide and 4.5 m high.

Line-borne Interference

A Schaffner NSG 600 interference test system (see Figure 6) tests for the effects of short-time power reductions and electrical bursts at voltage levels from 500 to 4 000 V and for frequencies equal to and below 5 kHz (in accordance with IEC 61000-4-4).

Electrostatic discharge testing is carried out to IEC 61000-4-2.

ENVIRONMENTAL TEST FACILITIES

Temperature

We have three temperature controlled chambers with capacities of approximately 14 m^3, 16 m^3 and 25 m^3. The chambers operate over a temperature range from –10 to +45°C.

Humidity

We have two humidity chambers:

- a small chamber (1 m^3) which operates from 30 to 98% relative humidity over a temperature range from 15 to 45°C; and
- a large chamber (16 m^3) (see Figure 7) which operates from 30 to 99% relative humidity over a temperature range from 15 to 60°C.

The large chamber also operates as a temperature controlled chamber over a temperature range from -30 to +60°C.

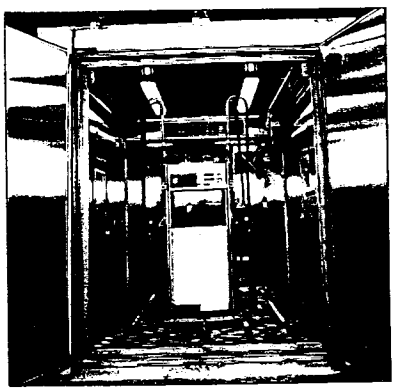


Figure 7

PATTERN APPROVAL TESTING

One of our main responsibilities is to examine and approve patterns of trade measuring instruments.

Our Pattern Approval Laboratory examines the patterns of instruments which are used for trade against national or international metrological specifications to determine whether or not an instrument is capable of retaining its calibration over a range of environmental and operating conditions. The following trade measuring instruments are tested:

- *laboratory balances;*
- *retail weighing instruments;*
- *platform-weighing instruments;*
- *weighbridges;*
- *catchweighers;*
- *train weighing-in-motion weighbridges;*
- *belt weighers;*
- *totalising hopper weighers;*
- *non-totalising hopper weighers;*
- *area-measuring instruments;*
- *length-measuring instruments;*
- *multi-dimensional weighing instruments;*
- *brake-force measuring instruments;*
- *telephone meters;*
- *driveway flowmeters;*
- *liquefied petroleum gas meters;*
- *natural gas for vehicles flowmeters;*
- *milk meters;*
- *pipeline meters;*
- *truck meters;*
- *mass flowmeters;*
- *water meters;*
- *spirit dispensers;*
- *milk tanks; and*
- *liquid level measuring instruments.*

CALIBRATION AND PERFORMANCE TESTING

Calibration and performance testing is also carried out on instruments using our comprehensive range of metrological and environmental testing facilities.

TRACEABILITY

Our measurements and calibrations are legally traceable to Australia's primary standards of measurement and to international standards.

CONSULTATIVE SERVICE

We provide a consultative service for advise on technical matters.

TRAINING COURSES

Training courses are organised:

- on the national and international requirements for pattern approval;
- for standards officers; and
- for trade measurement inspectors.

PUBLICATIONS

Our publications include:

- pattern approval documents;
- course work material;
- NSC Bulletin;
- annual report; and
- information leaflets.

COSTS OF SERVICES

The costs of our services may be obtained on application.

SERVICE CHARTER

We are committed to serving clients in an open, effective and efficient manner.

Responses will be provided within twenty-eight days, but where this is not possible we will keep you informed of progress.

We will endeavour to complete routine pattern approval testing within twelve weeks.

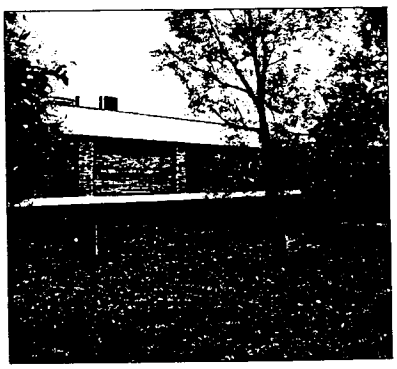
The Executive Director will respond to any complaint within five working days.

National Standards Commission
PO Box 282,
North Ryde, NSW 1670

Telephone: ***(61) (02) 9888 3922***

Facsimile: ***(61) (02) 9888 3033***

WWW: ***http://www.nsc.gov.au***



standards for quality

Reliability, certainty, profit

Gaming operation is a risk venture in which certainty and uncertainty play a decisive role. The player is attracted by uncertainty about gains and losses; about whether his luck will be good or not. The operator, on the other hand, is looking for certainty about profits on the game. However, they have a common interest in the quality of the entire gaming process. For the player, quality means fair play – a fair chance to win or lose. For the operator, quality also means fair play of course, but even more it means the reliability of the whole gaming process. This is the quality requirement he must set in order to operate the game at a profit. He will seek business economic guarantees in the correct use of the game, in which the technology is of crucial importance.

The Gaming Technology Department (GTD) of the Netherlands Measurements Institute can help to keep that technological quality at a constant high standard The GTD can test all gaming equipment for their liability to break down, their susceptibility to fraud, their pay-out percentages and randomness. The department can increase assurances of quality through type approvals, inspections and advice.

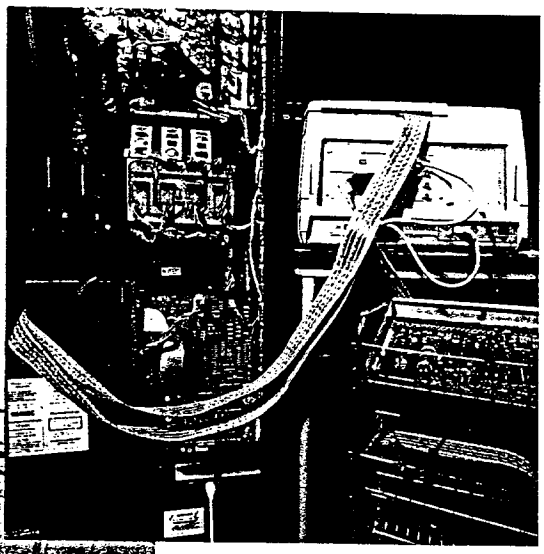
2429
90/42
7-3-90
NATIONAL STANDARDS CO.

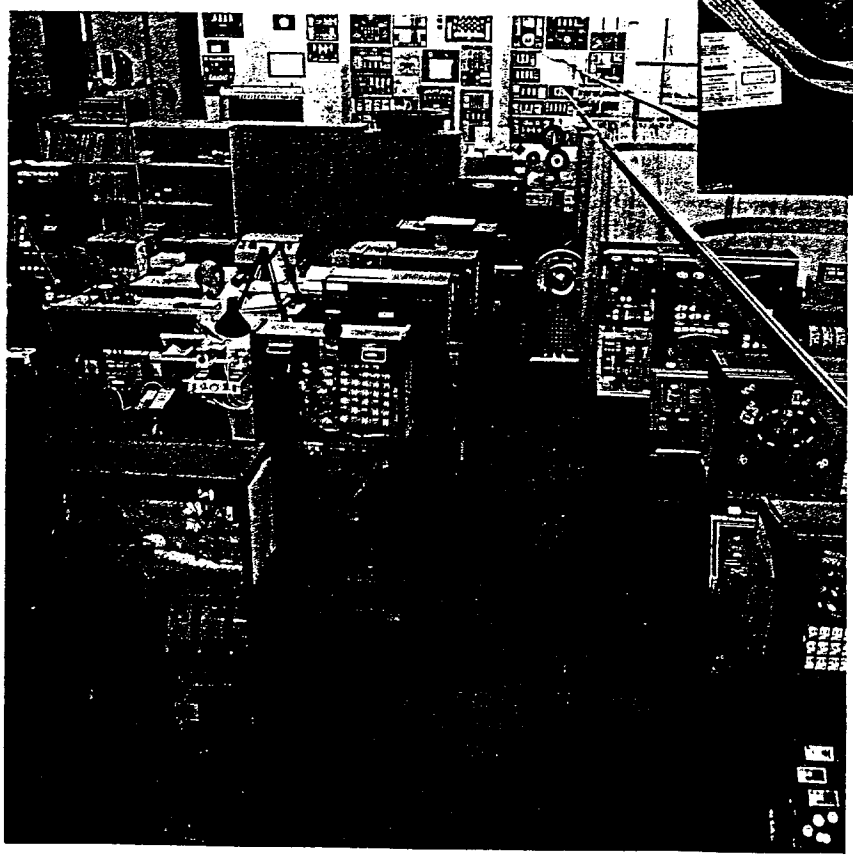
The Netherlands Measurements Institute

The Netherlands Measurements Institute, formerly part of the Ministry of Economic Affairs, has acquired an excellent international reputation for measurement and calibration in various fields. Now a private company, its duties and activities have not materially changed. The institute still performs a number of statutory tasks, for instance, on a government contract basis. In these activities, its staff act as public servants and hold all the accompanying powers. As a private company, the Netherlands Measurements Institute can place a great deal of experience and knowledge at the disposal of others. Not all of its knowledge of course: by definition, information supplied by private companies is kept confidential by the Netherlands Measurements Institute, and even its own staff have only limited access to these data.

The Gaming Technology Department

The knowledge and experience of the department covers a very broad area: besides slot machines, it also works on roulette wheels and lottery equipment. As already mentioned, the activities in these areas consist of making type approvals and inspections and giving advice. Inspections and approvals of roulette wheels have been carried out since 1976, and slot machines were added in 1981. The department not only studied systems in other countries during that period, when it was building up its expertise, but continues to do so today. This means that its laboratory equipment is constantly being adapted and refined. After all, the gaming equipment market is in a state of flux: designers of slot machines, for instance (not to mention crooks), are always looking for new avenues. The GTD is therefore always faced with new challenges, which it tackles with enthusiasm.



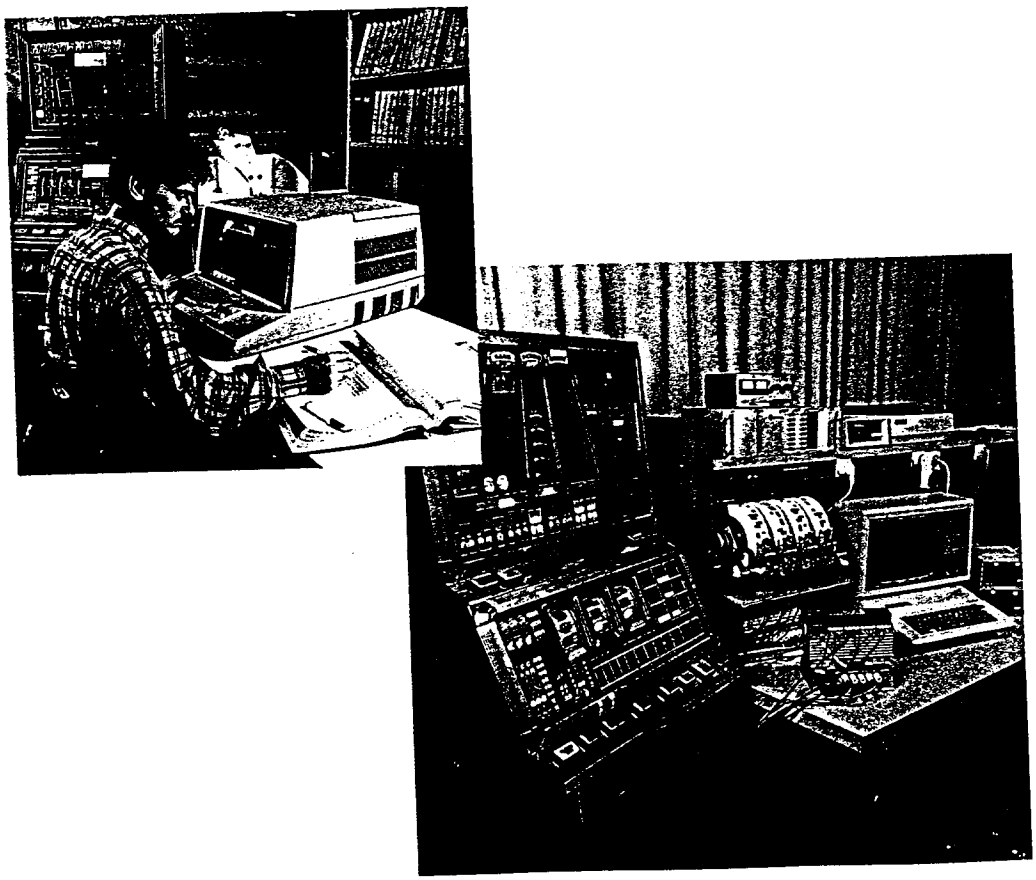


Type approvals

In the Netherlands the GTD carries out statutory approvals of roulette wheels and slot machines. With roulette wheels, both the physical properties and the results achieved in the game are examined. Equipment developed by the institute staff themselves is used to test some properties of a wheel before it is installed at a casino. These can vary from measuring the compartments and the height of the partitions to inspecting the quality of the wheel mechanism. At the same time, the randomness of roulette wheels is assessed in the laboratory using game simulation. Slot machine models are thoroughly tested during statutory approval procedures. Both the soft and the hardware are minutely examined. Important assessments made here involve the:

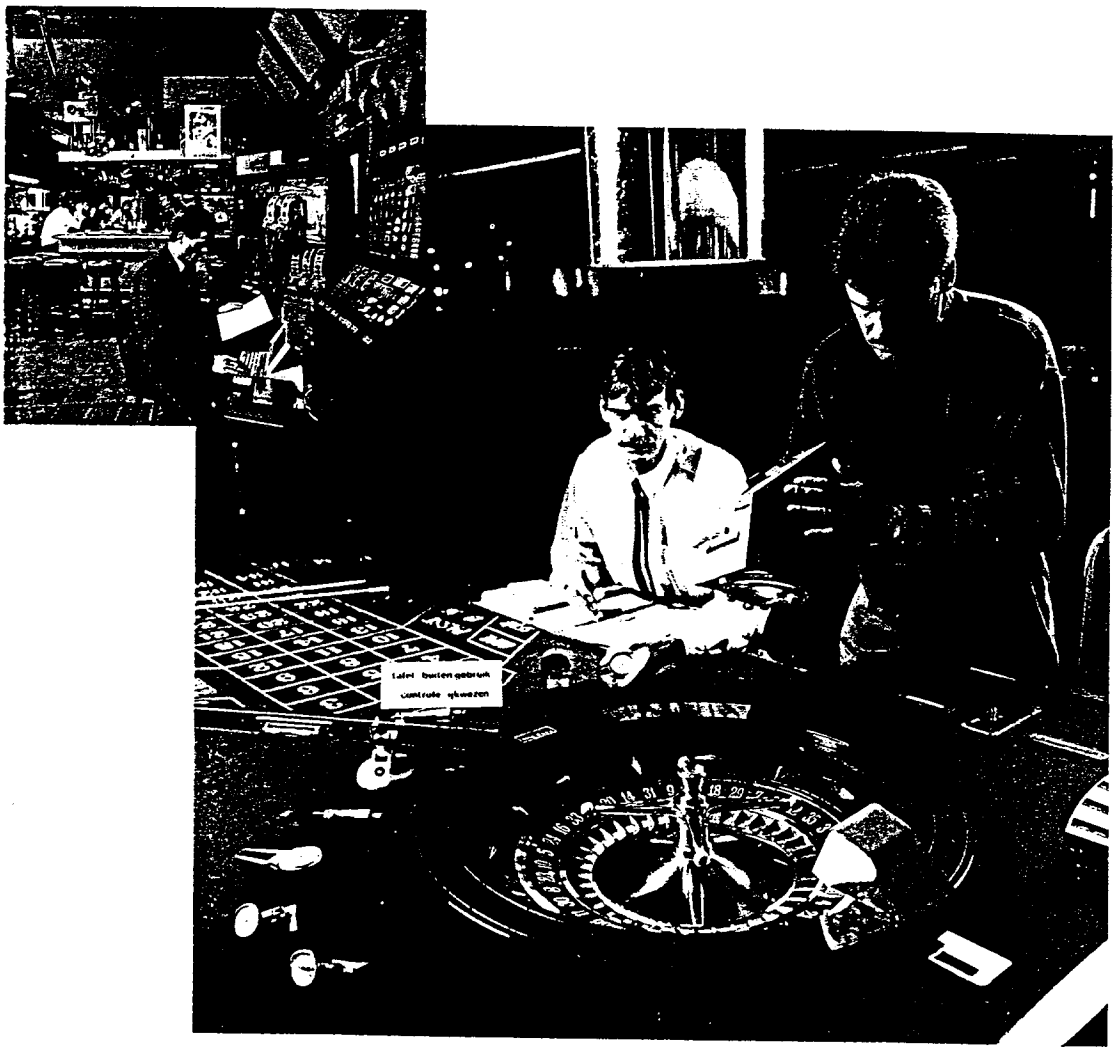
- breakdown frequency (including electromagnetic radiation, radio frequency interference)
- randomness
- susceptibility to fraud
- performance (including pay-out percentage)

Randomness is assessed in an evaluation of the frequency with which the symbols appear, using simulated games. The listing of the software programme is also studied, and dynamic simulations of different parts of the game are often carried out to evaluate the controls. Durability tests are conducted to determine the reliability of a machine after several thousands of games.



Inspections

GTD staff inspect roulette wheels at casinos. During these regular inspections, the wheels are checked to ensure that they still meet the specifications established and assessed in the type approval. At present, this is done with the mechanical equipment developed by the department. It will soon be possible to assess the randomness of roulette wheels retrospectively, using an optical read-out of the numbers which have come up as recorded by a computer. This will mean that changes in the probability of any number coming up can be detected at once. The GTD staff also have a duty to ensure that all slot machines in use correspond with the original approved models. These inspections are carried out with the aid of the most sophisticated equipment. Each inspector has a portable computer enabling him to make on-the-spot comparisons of the software stored in the erasable programmable read-only memory (EPROM) with that assessed at the time of the type approval.



What can we offer you

The Netherlands Measurements Institute's accumulated knowledge and experience is available to other organisations, companies and governments. In the latter case, this means that the institute can, for instance, carry out type approvals based on specifications from other countries. In addition, certificates can be issued or reports prepared on the properties of any gaming device, whether it be a slot machine, lottery machine, roulette wheel, keno/bingo machine or an automatic shoe or card shuffling device.

The following reasons for choosing the GTD can be mentioned:

- the GTD has a young and enthusiastic staff with up-to-date knowledge in the automation field and in the specific area of gaming technology. Their work is carried out with the most modern and advanced equipment
- in recent years the GTD has tested roulette wheel and slot machine models produced by all internationally well-known manufacturers. Its experience is therefore not only comprehensive but covers the entire field
- the GTD maintains contacts with fellow-services world-wide. Developments in gaming technology, and of course fraud prevention are coordinated wherever possible
- with Amsterdam airport and Rotterdam harbour and airport very close by, transportation of equipment presents no obstacle to using the GTD to carry out work. Furthermore, since the most common types of gaming equipment will already be in use in the Netherlands or one of the neighbouring countries, transportation will be of minor significance
- when gaming equipment has been certified or approved by the GTD, you know that the best available knowledge in the world has been used in the tests

Advice

In addition to certification and approvals, the GTD can supply other governments with advice on regulations and control in their implementation. As an independent institute, it can help companies to make the right choice of gaming devices and advise them on possible applications. To enable it to fulfill its advisory role properly in a broader sense, the GTD is affiliated to the Dutch Institute for Gambling Research. Members of scientific disciplines in the social, psychological, legal and economic fields are represented in this institute.

Among other things, it aims to provide broad-ranging advice on gaming by combining know-how in different disciplines.

Netherlands
Measurements Institute
Schoemakerstraat 97
P.O. Box 654
2600 AR Delft
The Netherlands
telephone: 3115 – 691500
telefax: 3115 – 612971
telex: 38373 ijkwz nl

Netherlands
Measurements Institute
Gaming Technology Department
Schoemakerstraat 97
P.O. Box 654
2600 AR Delft
The Netherlands
telephone: 3115 – 691500
telefax: 3115 – 612971
telex: 38373 ijkwz nl

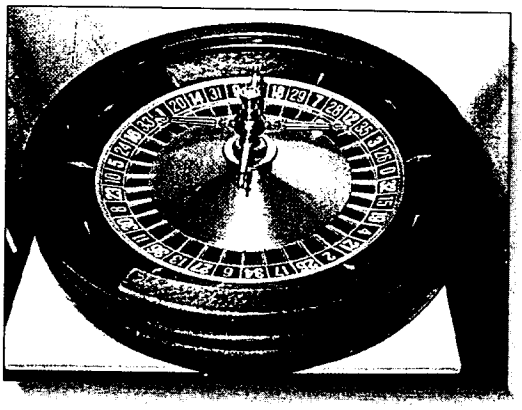
Authority, tasks and competence

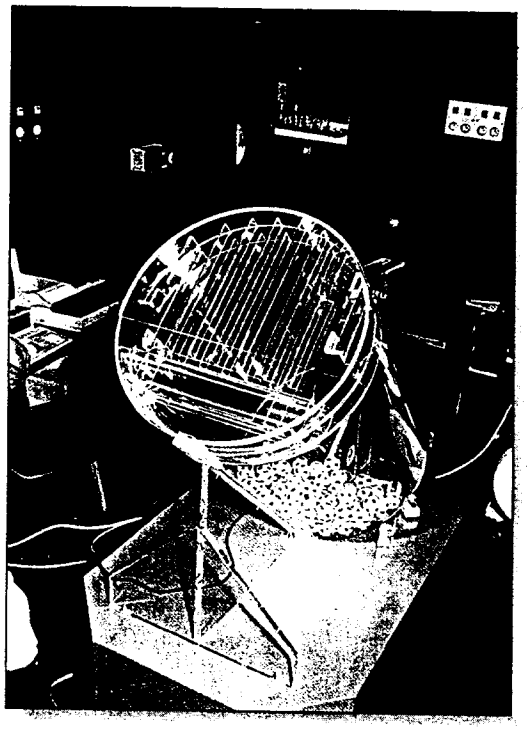
The National Office of Measures (OMH) is the national organization of legal metrology in Hungary having nationwide authority. On behalf of the Government it is supervised by the entrusted minister. In order to ensure international compatibility and the traceability of measurement results, to raise the level of measurement culture, to help towards expanding commercial relations and production agreements with developed countries, and to promote these aims by improving the competitiveness of products and services protected by metrological means of quality assurance, OMH performs the following functions:

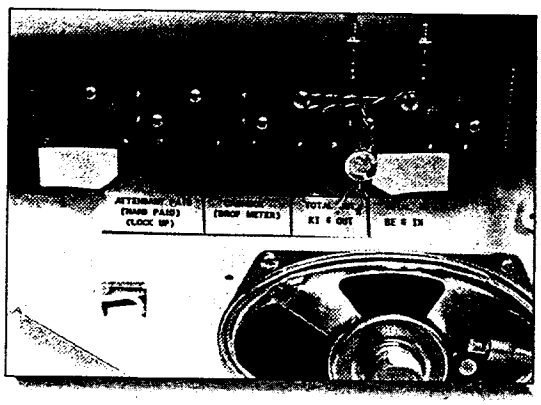
- drafts and coordinates the introduction of regulations on the use of legal units of measurements based on the relevant international recommendations,
- sets up, maintains, develops and uses the national measurement standards (etalons),
- performs international comparisons or obtains calibration for Hungarian national standards with international or internationally recognized primary measurement standards,
- calibrates secondary - both reference and working - standards for users and certifies reference materials,
- specifies metrological requirements and verification methods for measuring instruments that are subject to legal control,
- performs verifications and type approval tests,
- accredits and supervises calibration laboratories and represents the metrologic requirements in the accreditation of testing laboratories,
- provides metrological education, guidance and consultancy services,
- represents Hungary in the international organizations of metrology (e. g. the Meter Convention and the International Organization of Legal Metrology),
- assists in the control over gaming and gambling machines.

And something new:

Legal control over gaming and gambling machines is a relatively new task for OMH. The high reliability of the staff was the government´s reason for commissioning OMH with carrying out this work despite it is not being metrology (but conflicting interests are always in evidence when such machines are in use).







INFORMATION SERVICE

Leaflet No 1
December 1997

NATIONAL STANDARDS COMMISSION

Pattern Approval Laboratory

Introduction

One of the responsibilities of the National Standards Commission is the approval of patterns (i.e. designs or prototypes) of measuring instruments to be used in trade or commerce. Pattern approval aims to ensure that instruments will maintain their accuracy between verifications and will not be adversely affected by changes in environmental conditions (e.g. temperature, humidity, electromagnetic interference).

History

Prior to the establishment of the Pattern Approval Laboratory by the Commission in 1966, pattern approval was an independent responsibility of each of the States' and Territories' trade measurement authorities. This resulted in a lack of uniformity in pattern requirements and created severe problems for the trade measurement industry.

Under Section 19A of the Act and the Weights and Measures (Patterns of Instruments) Regulations, the Pattern Approval Laboratory undertook to conduct examinations of all new patterns of measuring instruments intended to be used for trade, when submitted for examination. This would ensure that once a pattern was approved, any device complying with that pattern would, after successful verification and stamping by a State or Territorial trade measurement authority, be suitable for use in trade throughout Australia.

The new laboratory was modestly equipped with a set of weights and beam balances for the examination of weighing machines and volumetric proving measures for examining retail flowmeters.

Over the next nine years, facilities were improved and the laboratory was able to carry out functions such as the examination of area-measuring devices, larger flowmeters and weighing-in-motion mechanisms. A significant innovation was the construction of an insulated cabinet for examining instruments at different temperatures — an aspect of assessment not hitherto undertaken by Australian trade measurement authorities.

In 1976, the Commission moved to their present premises at North Ryde and the increased room available enabled the Pattern Approval Laboratory to set up a more effective workshop and build the first load cell test machine with a weighing capacity of 50 tonnes. Bigger tanks and a larger prover facilitated the examination of industrial flowmeters and the temperature variation of larger measuring devices was made possible by the construction of a second, walk-in temperature chamber. With the use of load cells in almost all devices for legal mass measurement, a second load cell testing machine with a weighing capacity of 500 kg became necessary and was subsequently built. The two load cell testing levers were later automated to allow unattended operation and the 50 tonne lever was modified to increase its versatility.

Technological changes, such as electronic weighing instruments, electronic petrol pump indicators, electronic area-measuring devices, turbine-type flowmeters and integrated checkout systems where weighing instruments are electronically coupled to cash registers have resulted in the development of more sophisticated examination procedures and equipment.

12 Lyonpark Road P.O. Box 282 North Ryde NSW 2113 Australia
Telephone (National): (02) 9888 3922 Fax: (02) 9888 3033
Telephone (International): (61 2) 9888 3922 Fax: (61 2) 9888 3033

The Commission has installed a temperature and humidity chamber for testing electronic measuring instruments for the effects of high and low temperature and high humidity.

The Commission also tests electronic measuring instruments for electromagnetic immunity. The Commission's facilities consist of:

- an electromagnetic susceptibility chamber which carries out radiated susceptibility tests over the frequency range 26 to 1 000 megahertz; and
- an electrostatic discharge and line-borne facility which carries out electrostatic discharge, electrical bursts and power reduction tests at lower frequencies.

The Commission's national flowmetering facility provides traceability for volume measurements of petroleum products. It is used to test flowmeters for pattern approval as well as for calibration purposes.

The Commission has also recently upgraded its LPG facility to provide a reference standard for the dynamic measurement of LPG.

These improvements in the efficiency and quality of pattern compliance examinations have enabled the Commission to maintain design specifications which are of a standard agreed to by the member nations of the International Organisation for Legal Metrology (OIML). As Australia's representative on this body, the Commission is able to ensure compliance with the OIML recommendations by manufacturers and importers of measuring equipment in this country.

Pattern Approval Manuals

The specifications of instruments for use in trade are contained in the design specifications of the Commission. These specifications set out the criteria for patterns which applicants must meet in order to obtain a certificate of approval for the instrument. The specifications consist of ten pattern approval manuals for non-automatic weighing machines, liquid-measuring systems, liquor dispensers, length-measuring instruments, area-measuring instruments, milk tanks, load cells, weighing-in-motion systems, belt conveyor weigher and instruments measuring the quantity of liquids in tanks.

Each pattern approval manual consists of a number of documents appropriate to the particular manual, including information on certification procedures, symbols and maximum permissible errors.

Design specifications are now based on international recommendations published by OIML where these are available. Uniform test procedures and test reports are also used in accordance with the OIML Certificate System which allows exchange between member countries of reports of compliance of instruments with the international recommendation.

Pattern Approval Certificates

Notice of approval of a pattern of an instrument submitted by an importer or a manufacturer is disseminated to industry and to the trade measurement authorities by means of a certificate of approval, issued by the Commission.

An *Index of Approvals* is published annually and a list of the most recent approvals appears in the back of the Commission's quarterly *NSC Bulletin*. The certificates are also available on CD-ROM.

Certificates of approval are issued on the understanding that they are subject to regular review. They are:

Certificate of Approval of a Pattern

A certificate of approval is usually issued to applicants for new instruments that have been satisfactorily examined by the Pattern Approval Laboratory.

Supplementary Certificate of Approval of a Pattern

A supplementary certificate is issued when a component of a pattern is submitted for approval and, after examination, is found to comply with the Commission's design specifications for that component.

Provisional Certificate of Approval of a Pattern

A provisional certificate may be issued for a period of up to twelve months where, because of its large size, installation requirements or other features, the pattern of the instrument cannot be fully examined in the laboratory and therefore requires field testing.

General Certificate of Approval of a Pattern

A general certificate is issued to cover measuring instruments which can be manufactured to a common standard and which adhere to a specified set of design and/or installation criteria. It is usually issued for simple measures, such as masses, verifiable by trade measurement authorities without examination by the Commission, or where there is some need for control, even though there are no specific pattern approvals. General certificates can also complement certificates of approval by providing general data, installation requirements and by approving peripheral components.

Certificate of Approval of an Instrument

An instrument certificate is issued when the instrument under examination is uniquely designed for specific operating conditions and is not covered by any existing design specifications.

Conversion Certificate of Approval of a Pattern

A conversion certificate allows the applicant to convert instruments covered by a certificate of approval to a different type of instrument if that conversion is in accordance with a relevant general certificate.

A conversion certificate describes a pattern as examined by the Commission and a general certificate allows variants to that pattern.

Variation to a Certificate of Approval of a Pattern

A variation to a certificate of approval is required when an applicant changes or adds a pattern component (a variant) which alters the approved performance or operation of an approved pattern.

Interim Certificate

An interim certificate, valid for up to three months is issued on completion of a successful approval examination, to enable an instrument to be submitted for verification by trade measurement authorities prior to the issue of the certificate of approval.

Notification of Change to Certificates of Approval

Minor changes to approval documents such as changes in markings, clarification of descriptive material, alteration to periods of validity and other administrative matters, shall be notified by means of a notification of change (change notice). A notification of change may be issued for any type of certificate.

Cancellation of Certificate of Approval of a Pattern

A cancellation certificate may be issued to cancel an approval or series of approvals. After the cancellation date, no new instruments conforming to the pattern or variants described in the certificate may be submitted for verification or certification. However existing instruments may continue in use at the discretion of the trade measurement authority.

Withdrawal of Certificate of Approval of a Pattern

All instruments shall be removed from use for trade after a withdrawal certificate has been issued for the certificate under which they were approved.

Certificate of Approval for Legal Measuring Instruments

In addition to issuing certificates of approval for instruments in use for trade, the Commission can issue certificates of approval for instruments used for any other legal use.

If a measuring instrument is required by a government authority to be used for regulatory purposes, it is considered to be a legal measuring instrument and the pattern of such an instrument may need to be approved for conformance with specified requirements.

Instrument Test Report

An instrument test report is based on the performance of a module or a complete instrument and may or may not make reference to the Commission's pattern approval specifications. An instrument test report generally involves accuracy tests only, performed under the conditions specified by the applicant. Instrument test reports are only available to the applicant.

An instrument test report does not imply approval for trade use but may be useful to assess the performance of the equipment.

Regulation 80 Certificate

Under Regulation 80 of the National Measurement Regulations, a certificate can be issued if an instrument is used as a reference standard of measurement in the verification/certification of a measuring instrument in use for trade or used for legal purposes. Regulation 80 certificates can be issued for some instruments.